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ABSTRACT

This publication presents guidelines for planning, implementing, and evaluating a peer tutoring program within a vocational setting. Chapter 1 discusses benefits of peer tutoring and presents a compilation of guidelines, suggestions, and examples for planning, developing, and evaluating a peer tutoring program. Tasks in each area--program planning, development, and evaluation--are described. Chapter 2 presents an indepth look at 13 individual, diverse peer tutoring programs. They demonstrate the many program options, formats, and procedures available to those wanting to establish a new peer tutoring program or modify an existing one. The programs represent secondary and postsecondary institutions that typically offer both academic and vocational or technical education. The following areas are discussed for each program: development and administration, functions and operation, and evaluation and improvement. Chapter 3 provides a listing of selected resources and materials available for the vocational educator interested in implementing peer tutoring programs for special learner populations in vocational programs. Citations are arranged by type of document: program description, program handbook, and tutor handbook. The citations supply information regarding title, authors or developers, source, purpose, and annotation of the material or resource. Appendixes include sample forms and a list of books and sample handouts. (YLB)

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Research and Development Series No. 260

PEER TUTORING: A GUIDE TO PROGRAM DESIGN

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FOREWORD

The increased National concern for excellence in education, coupled with a need for the full participation of special groups through all segments of society, has challenged vocational educators to meet the diverse needs of all students more successfully. The diversity in student learning needs and declining fiscal resources have created a demand for alternative, cost-effective approaches.

Peer tutoring is a strategy conducive to the development of motor, craft, and language development activities, thus making it an effective method for enhancing vocational, bilingual, and academic skill development. It is a proven, cost-effective approach that can improve learning outcomes in both secondary and postsecondary vocational settings.

The purpose of this publication is to present guidelines for planning, implementing, and evaluating a peer tutoring program within a vocational setting. It explores the concept of peer tutoring in a variety of settings, thereby documenting the flexibility of peer tutoring and its application to a diverse learning population.

This publication is for use by educators who work in vocational settings and who recognize a need to explore and apply learning strategies that will enhance learning experiences, thereby assisting students in more easily attaining their educational and vocational goals. Administrators and program developers will gain insight into the benefits of peer tutoring as a cost-effective program that uses existing staff and capable students.

The National Center wishes to thank the many individuals who helped to plan and produce this publication. First and foremost, appreciation is extended to members of the project technical panel, who assisted the project staff in identifying peer tutoring principles and practices and delineating the areas of vocational education to which peer tutoring is most applicable.

The panel was composed of the following individuals:

- Joe Aguirre, Coordinator for Vocational Education for Disadvantaged Student Services Corporation, Chicago City Board of Education, Chicago, Illinois
- Theodore Drykos, Coordinator, Student Services Corporation, Chicago City Board of Education, Chicago, Illinois
- Ernest Lara, Director, Special Services Program and Learning Assistance Center, Glendale Community College, Glendale, Arizona
- Ray Olson, Director of Special Needs, Iowa Western Community College, Council Bluffs, Iowa
- Ellen Thomas, Coordinator, Learning Assistance Lab, Middlesex Community College, Edison, New Jersey

- Phyllis Thompson, Coordinator of Developmental Education, The Ohio State University, Newark, Ohio

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- Jesse Comacho (site coordinator), California Medi-Corps Program, California
- Jose Chavez (site coordinator), Migrant Education Summer Leadership Institute, California
- Sandra Acebo (site coordinator), Los Medanos College, California
- Hollis Stewart (site coordinator), Jeanmarie Rachal, City College of San Francisco, California
- Judy Jorgensen (site coordinator), Dennis Dolezar, Waukesha Technical Institute, Wisconsin
- Florence Wesseluis (site coordinator), Diane Ingalsbe, Gateway Technical Institute, Wisconsin
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Robert E. Taylor
Executive Director
The National Center for Research
in Vocational Education

EXECUTIVE SUMMARY

Recent Federal legislation such as the 1976 Vocational Education Act (P.L. 94-482) and the Education for All Handicapped Children Act of 1975 (P.L. 94-142) has charged vocational educators with the task of delivering programs designed to meet the increasingly diversified needs of vocational students. Intrinsic to this charge is a need for the inclusion of alternative learning strategies.

Peer tutoring is a specialized teaching strategy that has been proven effective in a variety of academic and vocational settings. Because of its adaptability to individual learning needs, peer tutoring can be easily incorporated into the vocational classroom. It can be implemented without the high costs usually associated with hiring and training additional staff. Peer tutoring typically results in a number of benefits to students, staff, and administration.

The literature base describes peer tutoring as an age-old strategy that lost its popularity when the one-room school house ceased to exist. In the 1960s, peer tutoring was revived primarily as a remedial tool in postsecondary settings. Current data suggest its effectiveness in aiding special needs learners to achieve educational objectives.

In preparing this publication, current generic peer tutoring principles and practices were examined. The abstracted information was developed into guidelines for application to secondary and postsecondary vocational settings.

This publication addresses the phases of program planning, program development, and program evaluation as the organizational themes for the implementation guide. Each phase is discussed in terms of its operational components.

Program planning is concerned with the tasks relevant to preparation of a program plan or proposal. The major planning tasks focus on conducting a needs assessments, and planning program objectives, administration, and coordination, materials, facilities, and equipment, budget, and resources needs for a program.

Program development addresses the tasks involved in initiating the operation of each component, including orientation, faculty inservice training, tutor recruitment and selection, tutor training, tutee intake, matching, and assignment.

Program evaluation incorporates several types of evaluative techniques that are effective in assessing peer tutoring programs. In order to document actual peer tutoring experiences and techniques, various program models were surveyed through site visits. A synthesis of these models reviews peer tutoring principles and practices of importance and interest to the vocational community.

Finally, research materials and training information relevant to program implementation were reviewed and described. Also, samples of commonly needed forms are included in the appendices.

CHAPTER I

PLANNING AND DEVELOPING A TUTORING PROGRAM

Introduction

The increased National concern for excellence in education, declining fiscal resources, and increasing numbers of students with special needs are challenging educators to improve the effectiveness of their instruction for all learners. Of particular concern to vocational educators are learners with special needs that hamper their success in vocational programs. Engaging in or expanding the use of peer tutoring and related techniques can provide a proven, cost-effective, and easily implemented approach to educational improvement at both secondary and adult levels.

Definition

Peer tutoring is an instructional technique that has been used successfully with children and adults to achieve academic and social development goals. Collaborative learning as practiced in peer tutoring can be beneficial for disabled and normal children and adults. Benefits that accrue to the tutee include increased individualized attention, closeness to the instructor, and improved learning efficiency (Pierce 1983). Positive gains have been shown in academic achievement, social integration, and cognitive skill development with various configurations of tutoring, including peer, cross-age, adult-child, and normal-handicapped, as well as handicapped learners serving as tutors for normal learners (Asselin and Vasa 1983; Holder and Lister 1982; Osguthorpe 1984; Ford and Russell 1983).

History and Development

Peer tutoring has a long history, with records of its use dating back to the Spartans, early Romans, and Hindus. It was used extensively in the one-room schools of the United States, where a teacher had many students at different grade levels and not enough time to give them all individual attention (Lehr 1984). With the disappearance of the one-room schoolhouse, peer tutoring fell into disuse.

Although peer tutoring has existed for centuries, it was not systematically labeled as an instructional approach until the 1960s, when the emphasis in American education changed from

methods appropriate to group instruction to methods most appropriate for the individual (Ford and Russell 1983). Many tutoring programs were established during the 1960s and early 1970s as schools adopted "open door" policies that resulted in increases in the number of educationally disadvantaged students in schools (Reed 1974).

Cross (1974) reports that a National survey of developmental education in 1970 and 1974 showed that some type of service for the disadvantaged student was provided in 80 percent of the community colleges surveyed in 1971 and that this figure increased to 93 percent in 1974. Roueche and Snow (1977) reported the findings of a comprehensive National study of developmental/remedial education programs in 1975-76. They found that 86 percent of the community colleges surveyed had some type of special service for academically deficient students, and 95 percent provided special services that included tutoring and counseling.

Benefits

Initially, tutoring programs were developed to help the tutees improve their academic progress; however, research indicates that the tutors also make significant gains in their understanding (Cloward 1967; Morgan and Toy 1970).

Teachers who use peer tutoring also benefit in several ways. First, their teaching load is reduced somewhat, allowing more time to help other students. Teachers also find that both tutors' and tutees' attitudes toward the class and school in general improve through peer tutoring. Class troublemakers often exhibit increased maturity and respect toward others (including the teacher) when given the responsibility of instructing other students.

Peer tutors are usually able to identify with the tutees and are more economical to employ than either additional teachers or paraprofessionals. Tutees often feel less threatened by peer tutors and feel they can be more open with them. In addition, tutees usually feel that peer tutors present the material in a more interesting way than do others. Not only do tutees receive individualized instruction, they also discover their own strengths and boost their self-confidence as they learn. In addition, they are exposed to positive role models and interact with and learn from students (as tutors) who have overcome similar problems. Tutors also develop self-confidence, self-esteem, and teaching skills. In addition, they may receive financial assistance or credit in school for their efforts (Reed 1974).

Many tutoring programs were initially geared toward helping students with academic problems (Jason, Erone, and Soucy 1979). In recent years, tutoring has gained popularity as a strategy for instructing special needs students in vocational education programs because it is conducive to the development of motor, craft, and language development activities and skills (Asselin and Vasa 1981). When tutors, special education teachers, and vocational teachers cooperate, tutoring programs can be effective in easing the integration of mildly handicapped students into vocational classes.

The literature also indicates that relationships between ethnic minority groups and whites are often improved through the use of peer tutoring. As Dixon (1975) notes, "There are . . . factors which make peer tutoring particularly appropriate in bilingual/bicultural classrooms" (p. 2). For example, cultural values of Mexican-American children are such that they perform best when placed in educational settings in which they are able to relate directly either to the teacher or other students. Dixon further states that "what we currently know about (Mexican-American children's) cognitive style makes a strong case for the use of peer teaching activities as a regular rather than

incidental part of the curriculum" (p. 4). In sum, if peer tutoring techniques in the bilingual/bicultural classroom reflect the cultural values of the children involved, learning can be enhanced.

Effective tutoring programs include attention to tutor training (Jenkins and Jenkins 1982). Research has shown that trained tutors perform more effectively than untrained tutors, with their tutees making significantly greater gains than tutees of untrained tutors (Harrison and Cohen 1969; Niedermeyer 1977; Gladstone and Sherman 1975; Harrison 1978).

Summary

The educational benefits of peer tutoring are many. In this time of declining resources and increasing emphasis on basic and academic skills, educators are seeking ways to make their teaching more effective. Vocational educators, in particular, are in need of techniques that can increase the educational effectiveness of programs for students with special needs. Peer tutoring is a proven strategy and if properly planned, implemented, and evaluated, can be a valuable support program for all vocational students.

The remainder of this chapter presents a compilation of guidelines, suggestions, and examples for planning and developing a peer tutoring program.

Program Planning

The effectiveness and utility of a peer tutoring program depend upon good planning. Planning includes those tasks and activities that result in a written proposal or plan describing how a program will be developed once approvals and funding are provided.

The Need

The initial impetus for planning usually grows out of a recognition that a segment of the student population is failing to meet minimum school requirements or expectations. One or more individuals may need to take some preliminary actions to (1) bring attention to students' problems or deficiencies, (2) suggest tutoring assistance as a solution, and (3) secure administrative support and approval to begin exploring the feasibility of a peer tutoring program. The initiator may be an administrator, counselor, teacher, educational specialist, student, or parent, as illustrated by the following two examples:

> In Mesa, Arizona, students, parents, and teachers were instrumental in initiating a peer tutoring program at Mountain View High School.
>
> School administrators and teachers at Maryvale High School in Phoenix (Arizona) area began planning a program as a means of combating high dropout rates and low reading levels among the students.

Once planning begins, it must be given top priority, with adequate time, staff, and financial support to ensure the development of complete and well thought-out plans. Planning time will vary

depending upon the size of the intended program. A large, schoolwide program may take several months of planning, whereas a smaller program may be planned within a few weeks. Planning time must be available for staff to meet and discuss the many concerns that will need to be addressed.

Planning activities should involve necessary representation from the administration, faculty, staff, and student body at appropriate times. As the planning progresses, ideas that depend on the cooperation of school personnel or students should be submitted to the appropriate parties for their review, acceptance, and support.

> At Los Medanos Community College, a cross-curricular approach involved the administration, language arts, vocational, and academic program faculty in planning a reading and writing tutorial assistance program for all courses.

Financial support may be needed during the planning phase to purchase resource and program materials for review or to conduct literature searches. Clerical assistance may be needed to prepare drafts of plans, type minutes of planning meetings, and prepare memos and letters to administrative or parent groups. It is important that initial approval be obtained from administrative or supervisory personnel and that an adequate level of support is given to the initial planning activities to encourage participation and interest on the part of school personnel.

The several tasks involved in preparing a plan for a program include the following:

1. Establish a planning group.
2. Assess student needs.
3. Develop program goals and objectives.
4. Determine facility, material, and equipment needs.
5. Determine personnel requirements.
6. Draft a plan and circulate it for review.
7. Present the program plans to administration.

Establish a Planning Group

The initial awareness of and interest in starting a peer tutoring program may originate with one or more groups in a school, including teachers, students, administrators, parents. For productive planning to follow from the initial interest, a group of individuals should be designated as an official planning group. The members may be appointed or volunteer. They should operate with the sanction of the local administration, although official approval and support for a program will probably not be given until a full plan has been developed and submitted.

The start of planning activities should be scheduled so a plan can be approved in time for program development and start-up to occur at the beginning of a quarter or semester. A planning

group will have the responsibility for compiling information, collecting suggestions and opinions from students and faculty, and investigating alternative ideas. They will also be responsible for preparing written descriptions of program components and developing budget estimates. In carrying out these activities, they will need to be sensitive to the political environment of the institution and follow established protocol in communications with others. They will need the proper authority to carry out their responsibility and should be recognized as the official planning group through memos and announcements. Above all, there should be adequate time allowed or provided (released time) so that the planners can give full attention to the planning function.

Assess Student Needs

The first task of a planning group is to determine the nature and extent of student needs that might be served by a peer tutoring program. A needs assessment is typically conducted as an information-gathering process that provides evidence of the true problem or need and its causes. The results of the assessment should be used to determine if a perceived problem exists and if there are alternative solutions that might be appropriate.

Information-gathering activities may include surveys of or discussions with faculty, counselors, and students; reviews of files and records; and discussions with special aides and paraprofessionals in the schools. Types of information and data that can be collected and reviewed are retention/dropout data, course failure rates, standardized test scores, student grade point averages, and course completion and placement rates. An assessment might focus on a known specific problem, such as poor math performance or declining participation or placement rates in a vocational course requiring math or science skills.

> The Chicago City Schools' peer tutoring programs were implemented to serve schools having high student dropout and low attendance rates.

An alternative approach in assessing needs is to focus exclusively on special student groups that need a specific type of academic or vocational assistance, such as language or cultural adjustment tutoring for recent immigrants. Examples of other groups that might be targeted are the following:

- Academically or economically disadvantaged
- Limited English-proficient
- Learning disabled
- Handicapped

Still another alternative is to target the assessment on specific courses in which students have high rates of failure or low passing grades. Students having difficulty with such courses would be a target group for specific assessment and testing.

Gateway Technical Institute conducts reading and math placement tests in order to identify student needs and determine appropriate levels to begin working with students.

In summary, a needs assessment should provide information and data that will allow the planning group to answer questions such as the following:

- What educational problems exist?
- Which students are experiencing problems?
- What are the symptoms and causes of the problem?
- When and where are the problems most severe?
- What changes might alleviate the problem and its causes?

After relevant data are gathered, a careful review should be conducted to determine if a tutoring program is a viable solution to the problems that have been identified. If the planning group, in concert with other faculty and administrative personnel, are convinced that the evidence supports the need for a tutoring program, then the next planning task should be undertaken. If evidence is insufficient to make a decision, the needs assessment process should be reviewed and expanded. If the evidence does not favor a peer tutoring program as a solution, further planning activities might be postponed, terminated, or redirected toward other solutions.

Develop Program Goals and Objectives

The goals of a tutoring program should be consistent with and supportive of the general educational and social goals of the school and should reflect the results of the student needs assessment. Examples of program goals are to increase student knowledge and skill in specific content areas (math, reading, science, vocational subjects), to enhance self-image and motivation, and to improve student study skills. The specific objectives developed for the program should place time and quantity limits on the expected outcomes. Objectives should be limited to specific target groups and content areas. They should be specifically stated so that program accomplishments can be evaluated against measurable expectations. When goals and objectives are being developed, the involvement of students, faculty, administration, and staff should be sought to ensure their future acceptance and support of the program.

Determine Facilities, Materials, and Equipment Needs

After program goals and objectives have been determined, the planning group should focus on the physical resources that will be needed to implement a program. Adequate and attractive facilities will encourage student use. They should be spacious enough to accommodate the number of students to be served and to store and use special equipment such as tape recorders, record players, televisions, slide projectors, and other educational equipment. When planning for tutoring facilities, consider using the library, cafeteria, classrooms, or other available space.

including quiet hall spaces or lounge areas. The subject matter will often dictate the location if special materials, laboratory resources, or shop equipment will be needed during the tutoring session. The needs assessment and program objectives should provide some parameters in determining how many tutoring spaces might be needed, for what subjects, and at what times of the day.

Another consideration is the need for special equipment that may not be available or may be limited in number or accessibility. Special curriculum and instructional materials may be required to provide individualized tutoring assistance, especially if the program is targeted for special needs or disadvantaged students. The planning group should include or bring in content experts and special staff who know the particular needs of special students. Specialists will be able to assist in determining the need for materials and equipment and where they may be purchased or borrowed. Plans for facilities, equipment, and materials should be reflected in terms of projected expenses and purchases for both short-term and long-term funding periods.

The planning team should determine the equipment needs that may arise and calculate the budget projections to meet purchases of such equipment and materials. In addition to the need for facilities, materials, and equipment to provide tutoring services, there will be needs related to orientation sessions, tutor training, faculty inservice training, program administration, and evaluation, as discussed in the following sections of this publication. Each program component should be planned and analyzed to determine needs and costs. The calcuations for all projected needs will constitute the estimated totals for a final budget.

Determine Personnel Requirements

One of the most important elements of a tutoring program is the personnel who will develop, coordinate, and supervise the program. Planning for personnel needs is a major task that must be done with consideration to the overall program design. If the tutoring program is to be offered on a schoolwide basis, a coordinator will be needed to carry out developmental and operational duties. Most schoolwide programs use a full-time, on-site coordinator or director. In general, faculty members should not be overloaded with program operation and coordination responsibilities. Their proper role is to use the time gained through tutor assistance to provide more individualized assistance to students. Faculty should be involved in the process of recruiting and selecting a coordinator.

The role of the coordinator is central to the success of a program. That person should be knowledgeable about the teaching/learning process, learning difficulties, and tutoring strategies and techniques, and should be sensitive to tutor and tutee needs.

Some characteristics that a selection committee might desire in a coordinator are the following:

- Special or developmental education background
- Good oral and written communication skills
- Leadership and management skills
- Previous teaching or tutoring experience
- Previous program development experience

The planning group should develop a tentative job description for the coordinator position and establish a schedule for recruitment and hiring. A coordinator should be hired and assigned as early as possible following program approval so that program development and implementation can begin. The following tasks and activities are examples for which a coordinator might be responsible:

- Developing program policies
- Developing program services
- Hiring personnel or tutors
- Purchasing and ordering
- Developing instructional materials
- Planning facilities
- Managing budget and payroll
- Providing orientation and inservice training
- Developing forms
- Preparing monthly/quarterly reports
- Establishing and maintaining student files
- Evaluating the program
- Providing public relations/information
- Coordinating faculty participation

This list is not exhaustive but reflects the range of daily and weekly tasks that must be completed for a tutoring program offered on a schoolwide basis.

The planning group should also give attention to the number of tutors and support personnel that may be needed to operate the program. Based on the projected number of students to be served, estimates of the number of tutors can be developed. Limitations on the number of students a tutor can serve and total hours spent should be discussed and resolved. The type of tutoring service (individual or group), subject matter, and length of tutoring sessions will all affect the number of tutors needed. If tutors are to be paid, cost estimates should be determined and projected in the program budget.

The need for and availability of special aides, professional staff, and clerical staff should be reviewed. Again, cost estimates should be developed based on estimated program size.

Draft a Plan and Circulate It for Review

The final plans for the program should be written and typed and copies prepared for circulation among the various groups that will be involved. There are several points to consider and clarify before publicly releasing a draft of the plan:

- Is a preliminary administrative review necessary or advisable prior to release?
- Are there sections of the plan that should not be released (for example, the budget)?
- Should some sections be reviewed by selected individuals instead of a general audience?
- Who should receive the plan, and what instructions and deadlines should be given for the review?

After these questions have been answered, it is advisable to have a formal review and procedure for obtaining suggestions and questions to be addressed. A systematic set of review procedures, instructions, and response forms will make revisions easier and will ensure that all responses are considered. Revisions should be made as appropriate. A formal response to the reviewers' comments should be prepared explaining both the changes that were made and those not made, with supporting reasons.

Present the Program Plans to Administration

When starting a new program, the planning group should make a formal presentation of the plans and resource requests to the administrative person or group that will approve and fund the program. During the meeting, the planners should make a formal presentation, addressing the following topics:

- The problem and the need for the program
- Students to be served
- Benefits to be gained
- Savings to be accrued
- Financial and other resources required

The presentation should sell the concept of a peer tutoring program and should clarify and emphasize the benefits and the costs. The planners should be prepared with supporting data on student needs, such as local letters of support and research literature citations supporting the effectiveness of peer tutoring. Any possible support from outside resources should be explained, and approvals to seek funding should be requested, if not already completed.

Adequate copies of all materials should be duplicated and left with the administrator(s) for review. One of the planners should be designated as the key contact person to answer any questions and provide other information that may be requested.

Program Development

Following approval of the program plans, the next phase of activities should focus on developing and implementing the major components of the program: an orientation program for students, faculty, and staff; an inservice training component for faculty and staff; tutor recruitment and selection procedures; a training program for potential peer tutors; procedures for student intake and referral; guidelines for matching and assigning tutor-tutee pairs; and coordination of routine tasks.

Orientation

The first components to be delivered will be one or more orientation sessions, which are typically used to disseminate timely and accurate information to the total school community and provide an opportunity for generating interest in the tutoring program. Orientation sessions are generally designed to familiarize faculty, students, and others with the philosophy, purpose, and operation of the peer tutoring program. Sessions are generally broad in scope, highlighting the who, how, why, where, and when elements of the program. An orientation program does not have to be long to be effective. An hour or less should be sufficient, but time will vary depending upon group size, responsiveness, and schedule constraints.

Orientation should be arranged far enough in advance so it can be included on the school's master agenda as a required or regular activity (function). Advertising the orientation program typically includes preparing, distributing, and placing fliers and posters; advertising through newspapers or newsletters; and making general announcements via the school public information system.

Faculty/staff orientation. In a secondary school setting, faculty orientation should be held prior to student and parent orientation. Students and parents may have many questions concerning the program and will expect teachers to have answers. Members of the faculty should be prepared to provide answers and serve as advocates for the program. The program coordinator should meet with faculty at regular faculty/staff meetings or visit with faculty groups in departmental meetings to conduct orientation briefings.

In a postsecondary setting, faculty attendance at an orientation may be voluntary, and scheduling may need to be more flexible. Some schools accomplish orientation by holding an open house with refreshments. The presentations should be structured to allow faculty members time to participate in both formal and informal dialogue. A less structured, though more time-consuming, method involves talking informally with faculty members on an individual or small-group basis. Orientation sessions to demonstrate the program's potential to help faculty members overcome student learning problems should lead to faculty support and participation in the peer tutoring program.

Faculty orientations typically cover the following:

- Philosophy and goals of the peer tutoring program
- Benefits to be derived by faculty
- Methods of operation

- Role of the faculty member
- Handouts with answers to parents' questions
- Copies of forms or logs that faculty members will be responsible for preparing and submitting
- A timetable with projected dates for scheduled program events (e.g., the date tutoring begins, recruitment, inservice days, tutor training)
- How to contact the coordinator for conferences

Orientation should stress the importance of faculty involvement and cooperation and that the peer tutoring program will not replace the teacher's role in the instructional process.

Student orientation. It is important to schedule student orientation soon after classes begin. Entry-level vocational students from feeder schools sometimes experience difficulty adjusting to the vocational setting. Early orientation to the peer tutoring program can serve to decrease these initial problems by offering planned support from the beginning. If a school has planned to offer credit to students who serve as tutors, it may be necessary to hold an orientation session prior to the actual class registration period. To reach the total student body, orientation can be held in an assembly setting. If space and/or numbers do not permit an assembly, then students can be reached by talking with individual or combined classes. Students should be given pamphlets, fliers, schedules, and any information that will promote a positive attitude toward the program. A typical orientation session for students will cover the following:

- Goals of the peer tutoring program
- The concept that it is all right to ask for help
- The concept that the program is designed to help strengthen students' academic abilities (rather than emphasize weaknesses)
- Sample schedules showing the time element involved
- A filmstrip or slides showing an actual tutoring event
- A list of benefits to the tutee and tutor
- Incentives designed to create interest among potential tutors (e.g. paying tutors, if funds are available, or rewarding tutors with academic credit)
- Sample forms that must be completed by students who participate in the program

Parent orientation. Parents of secondary-level students need to be informed about the peer tutoring program before any tutoring actually begins. Addressing parent groups usually reaches large numbers of parents. If parent group meetings are not well attended, it may be necessary to send a letter or memo to parents detailing information about the peer tutoring program. Parent orientation information typically includes the following:

- The philosophy and goals of peer tutoring

- Criteria for selecting tutors
- Criteria for selecting tutees
- How the program will operate (hours involved—after school, before school, sessions held in class, out of class)
- Who will supervise tutoring sessions
- Dates for program-related activities
- Sample forms that parents may need to sign and return (permission to tutor, permission to receive tutoring)

In all parent correspondence, be sure to include the name and phone number of a person to contact if any questions arise concerning the program.

Faculty Inservice Training

The purpose of inservice training is to prepare faculty members for their program role(s) within the classroom or the resource center. Inservice training is typically scheduled for flexible delivery to meet the learning needs and time commitments of the members of the faculty. Some schools schedule small-group sessions on a regular basis, whereas others conduct large-group sessions intermittently through the academic year. Sessions are characteristically scheduled for a 2- to 3-hour time block, but the time scheduled for training sessions can vary. Training will be more effective when scheduled far enough in advance to allow faculty to attend and receive any requested follow-up after the initial session. Depending upon institutional policy, it may be necessary to request released time for participating faculty. School systems that have prescheduled inservice days may allow faculty to attend the peer tutoring inservice in lieu of a regular program. Memos or letters detailing the time, date, and agenda should be sent to faculty in addition to notices posted in faculty lounges and offices.

> Instructors in the Cleveland Schools receive a year-long series of preservice and inservice instructional seminars designed to help them create classroom materials and develop teaching strategies.

Whereas the orientation program is broad in scope and addresses the total school community, an inservice training session should be narrowed to focus on the needs of faculty and support staff who will participate in the peer tutoring program. Counselors, secretaries, receptionists, and clerks are often the first line of contact for students. If staff are knowledgeable about the program, they can encourage student participation. During inservice training, materials should be provided to admissions personnel, counselors, evening employees (postsecondary), financial aid officers, and resource center employees, as well as to faculty.

In order not to waste the participants' time, present only necessary and valuable information during inservice sessions. Teachers will be seeking strategies that work with the target population and information about what their roles should be in the program. A well-organized agenda containing useful information is important in preparing the participants to help get the program off to a

successful start. Teachers' roles will vary depending upon the program delivery model. Teachers participating in a program with in-class tutoring typically assume more varied and broader responsibilities than do teachers participating in a program with tutoring done in a central location (tutoring center, resource center, learning assistance center).

The teacher's role within a classroom tutoring model. The responsibilities of teachers participating in classroom peer tutoring models are diverse and vary among programs, depending on such variables as the number of additionally hired program staff and program coordination. Typically, the responsibilities most often assigned to the classroom teacher include, but are not limited to, identifying and referring prospective tutees, identifying special needs students, recommending potential tutors, and monitoring and assessing tutoring sessions.

Participating teachers are often responsible for identifying prospective tutees and initiating their referrals. Recognizing the importance of this task, the inservice training program should provide teachers with guidelines that will enable them objectively to identify students who can benefit from tutoring assistance, especially those who lack adequate communication skills, those who lack adequate math skills, and those who are working below grade level. When identifying such students, it is helpful to delineate their areas of deficiency by noting such characteristics as the inability to follow written directions or difficulty in expressing themselves verbally or in writing.

After identifying a potential tutee, a teacher may be requested to complete a tutee referral form to get the student officially enrolled in the tutoring system. (Sample forms are provided in appendix A). Teachers should be given handouts containing lists of established program criteria and available tests to be used in the selection of tutees. Sample referral forms should also be provided.

> Los Medanos Community College language arts and vocational instructors use specially developed tests to screen students within the first 2 weeks of each semester. Students with deficiencies are referred to a tutor assigned to the course. Students with severe problems are referred to special courses.

In preparing teachers to identify tutees, give particular attention to the student with special needs. Although most special needs students have been identified prior to beginning upper-level vocational courses, there may be some individuals who are having difficulty in succeeding in the vocational program because of the effects of an unrecognized disability, disadvantage, or dysfunction. Guidelines should be provided that will enable teachers to identify characteristics that are indicative of special needs student. (See appendix B.) Guidelines should identify a student who is hearing impaired, visually impaired, or learning disabled, or who needs language-related assistance. If basic skills specialists, special education teachers, and/or vocational or special education coordinators are available, it is prudent to involve them in the inservice training sessions. They are typically involved in preparing the individual education plan (IEP), which now must be developed for each handicapped student, according to Public Law 94-142. These special staff members can help provide guidelines and relevant special materials.

Another task often assigned to the classroom teacher is recommending students to be hired or selected as peer tutors. A teacher referral process, including completion of forms, utilization of criteria, and interviews, is discussed under tutor recruitment and selection. Inservice training should outline the program recommendation procedure(s) for teachers and also provide sample forms and other handouts applicable to the tutor recommendation process.

Additional responsibilities of teachers to be addressed include monitoring and assessing tutoring sessions. The classroom teacher who monitors the in-class tutoring sessions should receive inservice training that provides monitoring guidelines. If tutoring is being done concurrently with other classroom activities, teachers should randomly monitor the tutoring pair during breaks or while other students are involved in independent study. If tutoring is being done in the shop or lab area, teachers should (according to policy) observe or be in the area when machinery or equipment is being used.

Guidelines should indicate specific areas that the teacher should assess while monitoring tutoring sessions. These specific areas typically include tutee/tutor compatibility; tutor preparation; correct use of audiovisual equipment; adequate presentation of materials; and tutee preparation, comprehension, and receptiveness. If checklists are to be used for monitoring, the teacher should be given sample forms and instructions for completing them.

The teacher's role within the tutoring center program model. When the program model does not involve tutoring within the classroom, participating teachers are assigned fewer responsibilities. Program responsibilities typically include, but are not limited to, referring tutees to the center, providing accurate program information to students, preparing materials for tutees to take to the center, and serving as a resource person for tutors.

Training should provide specific guidelines for referring students to the tutoring center. Instruction should cover completing referral forms, contacting the coordinator, contacting parents, and writing memos to tutees. Whatever the referral procedure, written copies of all rules and regulations should be given to participating teachers. Guidelines to assist teachers in objectively identifying potential tutees are discussed later in this chapter.

Teachers referring students to the tutoring center must have accurate information. Teachers should be provided with handouts containing all pertinent information, including hours of center operation; contact person within the center; type of tutoring available (individual or group); and what information, if any, students should take to the center, such as Social Security card, grade report, and tutor recommendation.

Teachers need to be prepared to meet with tutors and assist them in locating additional materials that may be needed. Classroom teachers are also responsible for preparing materials to be used by tutors in assisting tutees. Training should provide teachers with such information as how to determine the reading level of textbooks, adapt materials from classroom texts to be used by students of varying reading levels, assess learning styles, incorporate the use of audiovisual materials and equipment to enhance tutoring sessions, and use computers, if available, to assist in learning. Inservice training should provide a list of materials that the program expects the teacher to make available to the tutor. These materials generally include, but are not limited to, course texts and accompanying workbooks, course handouts, reference books, course outlines and syllabi, audiovisuals, and any additional program purchased materials. Teachers responsible for preparing materials for students to take to the tutoring center should be aware of the following:

- Forms necessary for listing assignments (pages in text or workbook to be covered)
- Procedures for providing or requesting necessary audiovisual equipment
- Materials needed by tutoring center, such as course outlines, syllabi, sample tests, textbooks, or workbooks

If tutors who are not vocational students are to assist vocational students, it may be necessary for the teacher to prepare them to tutor in content areas related to specific occupational skills. For example, if a math tutor is assisting a student in a vocational drafting course to improve that student's math skills, the tutor may need a demonstration on the use of the vernier caliper and how the tutee should use it to solve measurement-related math problems. The vocational teacher would be responsible for preparing the tutor to use the vernier caliper properly.

Guidelines for the following may be included in inservice training:

- Determining tutee/tutor selection criteria
- Utilizing resource people
- Communicating with parents
- Revising classroom materials
- Working with special needs populations
- Evaluating tutees and tutors

Inservice sessions held after the program has begun can also be used as brainstorming sessions, thus allowing faculty time to communicate classroom tutoring experiences and offer solutions to problems that may have been encountered.

A well-planned, systematic inservice program should prepare participating teachers and staff to carry out their program responsibilities in a professional manner. It should maintain their interest and make them strong advocates for the peer tutoring program.

Tutor Recruitment and Selection

Tutor recruitment and selection procedures are perhaps the most important elements of a tutoring program. An adequate supply of qualified tutors is essential to the start-up and long-term success of a program. Recruitment efforts should begin as early as possible to allow potential tutors time to learn about the program, consider the benefits of participating, and obtain answers to questions they may have about their involvement. Also, adequate time should be allowed for staff to review the applicants carefully and make selections based on specific criteria and needs.

Developing and implementing the recruitment and selection components typically involves the following tasks:

- Determining the numbers of tutors needed in various subject areas
- Developing the recruitment campaign and materials
- Developing selection criteria and procedures
- Developing forms
- Conducting interviews and making selections

Determining number of tutors needed. The number of student tutors required will vary, depending upon the needs of the population targeted for tutoring. If tutees whose needs warrant individualized assistance have been targeted, then the number of tutors required will be greater than for tutees whose needs can be served through group tutoring. If the number of tutors to be selected is restricted because of budget limitations, then the number of tutees should be restricted accordingly.

Developing a recruitment campaign and materials. If the program delivery model uses a tutoring center, tutor recruitment strategies will probably require more coordinator planning than a classroom tutoring model. A school with a tutoring center should advertise schoolwide with notices, posters, school newspaper ads, and personal recruitment appeals to assemblies and groups. The in-class program model can typically rely more on teachers to identify and select tutors with whom they can work effectively. Teachers often prefer to work with students whom they have taught, because they have knowledge of the students' skills and mastery of course content.

During the recruitment process, potential tutors should be made aware of tutoring benefits. Typically, benefits to stress include the following:

- A sense of accomplishment in assisting others to attain their educational goals
- Increased understanding of the content and competence in a subject area
- The experience needed to determine whether they have the interest and interpersonal skills required for a career in public and/or human services
- Development of an employable job skill

Also, depending on the resources and flexibility of the institution, potential tutors may be offered incentives. The following are typical incentives:

- **Payment for tutoring.** Students may be paid by the institution or through a work-study program.
- **Course credit.** Credit may be granted for successful participation in a course devoted to tutor training.

Developing selection criteria and procedures. In large-scale programs, the coordinator(s) often assumes full responsibility for the selection of tutors. The type of selection procedure used depends upon how tutoring will be delivered and the time and commitment that teachers are able to provide.

Typically, two different bases for the selection of tutors are used: (1) identifying academically superior students as a source for tutors and (2) selecting students who are less than superior academically but who possess special vocational skills and/or will likely benefit from being in the program. Major criteria used to select peer tutors typically include desire to tutor, ability to relate to the tutee, demonstrated competence in the subject to be tutored, and an awareness and understanding of the tutee's problems (Reed 1974).

Generally, selection criteria reflect considerations of good attendance, mastery of a specific skill, grades (A or B), cumulative grade point average, ability to relate to other students, desire to tutor, and level of maturity. Other considerations include the ability to follow task directions and

adhere to safety rules and regulations. This is especially important when selecting a tutor to assist tutees in the operation of equipment or machinery. For tutor recruitment and selection to be successful and to ensure that program objectives are met, participants (teachers and students) should be fully aware of the selection criteria.

Developing forms. Forms used for tutor nomination and selection typically include an application and a teacher recommendation form. The application should be designed to gather information about potential tutors and their academic backgrounds. The form generally includes name, Social Security number or student I.D. number, courses completed and grades, academic major, and available free time. Some forms include space for a student writing sample. Teacher recommendation forms typically request that the teacher sign a statement indicating that students have sufficient knowledge of the course to be considered as tutors. Additionally, space for teacher comments is often included. (See appendix A for sample forms.)

Tutor interviews and making selection. The tutor interview is generally the final step in the selection process. It should be scheduled following the submission of all forms and recommendations. Some programs use teachers to interview prospective tutors. In other programs, the coordinator assumes the responsibility. Prospective tutors should be interviewed for the purpose of evaluating key factors:

- Expectations
- Ability to communicate
- Attitudes toward special needs students
- Appearance and grooming

Affirmative action guidelines require the interview process to be consistent. The interviewer should be supplied with a standardized list of questions to be used during the interviews.

The final selection of tutors is typically done by the coordinator, giving consideration to teacher's recommendations, evaluations, and other relevant input. A thorough recruitment and selection phase should ensure that a program has tutors with the characteristics and abilities necessary to provide effective tutoring services to target populations.

Tutor Training

Preparing a student to tutor does not require an overly long training program. Long, formal training can discourage students from being involved and can stifle one of the most valuable assets a tutor has—creativity. Tutor training programs can be adapted to meet the unique needs and scheduling of any school. They vary from a few short training periods (1 to 2 hours) to semester-long, credited courses.

> At Los Medanos Community College, tutor training is provided through a course that tutors attend as long as they continue tutoring. The course covers tutoring techniques, interpersonal skills, special populations, and diagnostic techniques. In comparison, Mountain View High School tutors are given 3 weeks of formal training that includes reading testing to determine their competence levels.

In many tutoring programs, the program coordinator is responsible for training tutors. The coordinator typically plans and organizes the training sessions, using the expertise of content specialists and classroom teachers when appropriate. Other resource people, such as reading specialists and special education or vocational education specialists, can also be part of the tutor training program. Tutors should not be expected to diagnose special needs problems, but they should be trained to be alert for special needs by following proper guidelines and examples. When group tutoring sessions are planned, training should provide group dynamics information to prepare tutors to work effectively with more than one student at a time. Training should also prepare tutors to deal with problem behaviors and emergencies.

Tutor training programs typically include the following:

- Roles and limitations of the tutor
- Tutoring methods and skills
- Practice exercises
- Attention to special needs students

At Gateway Institute, tutors meet with tutees for a 2-week period prior to orientation and training in order to give them prior experience so that they can relate more realistically and retain more completely information then covered in the training:

- Tutoring do's and don'ts
- Tutoring techniques
- Professionalism
- Tutor/tutee relationship

Defining the role and limitations of the tutor. Tutors need to have a clear understanding of their role. Many students may already have a basic understanding of what tutors do, but training should specify exactly what a tutor should and should not do in various situations. Examples of proper behavior include the following:

- The tutor should be positive and encourage the tutee.
- The tutor should not complete work for the tutee but should only assist the tutee. (Methods may vary.)
- The tutor should not accept or endure discipline problems but should be instructed to refer such matters to a teacher or coordinator.

Tutors' roles will vary depending on the educational level of the students (secondary, postsecondary, adult), the particular subjects being tutored, and the unique needs of the students.

Specific tutoring methods. A vital part of tutor training is preparing tutors to conduct effective tutoring sessions by employing a variety of methods, and choosing those that best fit specific subject areas. The following tutoring strategies and techniques can be employed to increase tutees' interest (adapted from *Structuring the Tutorial Session*, Duncan-Hall, n.d.)

1. Varying vocal communications patterns. Tutoring should not be a monologue, but a combination of short explanations and more extended discussion-questioning periods that allow for tutee participation. Specific methods include the following:

   - Lecture/explanation
   - Questions and answers
   - Tape recordings
   - Discussion
   - Games
   - Songs, music/demonstrations
   - Changes in voice pattern or volume

2. Varying visual communication patterns. The use of visual aids can improve tutoring. Experimenting with various visual aids will enable the tutor to determine what aids lend themselves to the specific subject being tutored. Blackboards are the most commonly used visual aid. Other aids that are suited for tutoring include the following:

   - Photographs/pictures
   - Models
   - Calculations
   - Overhead projectors
   - Maps/graphs/diagrams
   - Movies, videotapes
   - Flash cards
   - Hand signs (interpreters for deaf)

3. Varying the content of tutoring sessions. Tutoring sessions will deal with an assortment of related problems, questions, and concepts. To maintain the tutee's interest and help to prevent sessions from dragging, the tutor must be perceptive and switch to another approach to vary the focus (e.g., instead of dwelling on the causes of the French Revolution, occasionally switch to related content areas, such as the personalities involved in the revolution). Other variations in approach include the following:

   - Subject change
   - Major topic to subtopic
   - Specific to general (inductive)
   - General to specific (deductive)
   - Synthesizing subject with related learning
   - Applying information to new learning

4. Varying work intensity patterns. Tutors must be aware of the tutee's ability to maintain concentration. Occasional breaks and/or small talk may make the session more productive. Some techniques are these:

   - Small talk, break
   - Switch to slower, relaxed pace
   - Jokes

Other skills valuable to tutors are probing and reinforcement skills. The tutors should be taught to help tutees arrive at answers rather than telling them the answers. Typically, these skills include the following:

- Probing skills—clarification, reflection, refocusing, prompting, and redirecting.

- Reinforcement skills used to encourage the tutee and to increase incentive. Tutors should be taught to give positive responses.

Practice exercises. Practice exercises may include role playing, brainstorming, and the use of videotapes. Most programs typically use role playing in tutor training to introduce tutors realistically to the feelings and atmosphere of a tutoring session. It is a technique that can provide tutors with exposure to a variety of situations that may arise in a tutoring session and give them practice in alternative strategies for dealing with the situations. The trainer typically assigns tutor or tutee roles to students and then presents a situation. The role playing is viewed by the instructor and other student tutors. After a timed period of role playing, the trainer and observing students provide feedback. Students should alternate playing both tutor and tutee.

> Tutor training at the Waukesha County Technical Institute covers program procedures, paperwork, and evaluation practices. Specific tutorial techniques are taught, and information is provided on learning styles, tips for subject-specific tutoring, reinforcement, and questioning techniques to guide tutees

Other areas to consider for tutor training include note-taking skills, rapport building, study skills, test-taking skills, and sensitivity to special needs students. See appendix B for a list of tutoring tips that may be incorporated into a tutor training program. Talking with experienced teachers and content area specialists can also provide additional tips to assist tutors in working effectively with tutees.

Preparing tutors to work with special needs students. To serve special needs students well, it is necessary to train tutors to work with special populations. Because the learning styles of special needs students are as diverse as those of other tutees, it is difficult to suggest different tutoring methods to incorporate into a training program. Techniques using individualized approaches tend to be successful with students who need special help.

A study done by Redick (1979) indicates that peer tutoring techniques using a great deal of repetition of content and emphasizing short, sequential learning steps are especially effective with special needs students. Training tutors to use these techniques should enable them to work more effectively with tutees' diverse needs. Appendix B lists tips for tutors who are being trained to work with special needs students.

Tutor training programs should train students to work effectively with any student needing tutoring and to apply the most appropriate methods. Training tutors to use only one method or skill will limit their tutoring effectiveness. They can help meet program goals and objectives if they are prepared to meet the diverse needs of tutees.

Tutee Intake

There should be a formal procedure governing student referral to and intake by the tutoring program. The system should be as simple as possible and should generate student interest and prevent students from getting lost in the shuffle. Developing intake procedures typically involves the following tasks:

- Identifying the target population
- Developing selection criteria
- Developing forms (referral, sign-up, intake)
- Screening and interviewing applicants

Identifying target population. The information collected during the initial needs assessment is used to target the specific student population(s) to be served. Once the target population has been identified, limits must be set as to which students and how many within the target population can apply and be selected for tutoring assistance.

Developing selection criteria. In determining the criteria for selecting tutees from the applicants, consideration must be given to the outstanding needs of the targeted population. Needs vary from one setting to another and even from year to year within the same setting. Students lacking basic skills or other fundamentals may be selected over those with less serious deficiencies. Another approach may focus on students with the least amount of school time to recover from poor academic or vocational performance. Both approaches address those most in need.

An alternative strategy is to select students who may profit most from tutoring—those who are having temporary difficulty in a course. Such a selection strategy will ease the task of beginning tutors and allow time for faculty and tutors to gain experience before taking on more difficult student problems. The philosophy of the school and tutoring program should set the stage for establishing the selection strategy and criteria.

Examples of selection criteria include the following:

- Students who earn below a C in a course at the end of a grading period
- Students who earn a low score on a standardized test at entry
- Students who need additional help with a particular skill in order to keep pace with the rest of the class
- Students who have limited English proficiency and need assistance in translating materials, improving conversational skills, and learning technical vocabulary
- Students who lack adequate communication skills
- Students who lack adequate math skills

The selection criteria should reflect the program objectives and the availability of tutors with the interest and content knowledge to serve the target population. The wishes and interests of faculty and parents should also be considered in establishing criteria.

Developing forms. To screen and select tutees, forms that will elicit necessary information are needed. A tutee referral or sign-up form is typically used in tutoring programs to collect basic information such as name, grade level, Social Security or student I. D. number, area in which student is seeking assistance, instructor's name, and academic major. Students should also indicate class schedule, free time, lunch hours, study halls, and after-school hours if tutoring can be done then.

An intake form should be developed to gather more detailed information concerning the prospective tutee's academic situation. It should include questions that will elicit responses indicating tutoring needs or alternative solutions. Examples of the types of questions to include on the intake form follow:

- How many times have you been absent from class?
- What other courses are you currently taking?
- Is the course load manageable?
- What prerequisite courses have you taken?
- What were your final grades?
- Do you work in addition to going to school? How many hours?
- Do you use an organized method for studying? Explain how you study.

If a student is not attending class regularly because of a job or other responsibilities, it may be advisable to refer the student to a counselor for assistance before starting tutoring. If the answers to questions about study habits indicate an unorganized approach, helping that student improve study skills may be all that is necessary. If a number of students need the same type of assistance, group tutoring may be an alternative approach. After the referral and intake forms have been reviewed, the student should be scheduled for a personal interview.

> El Camino College requires tutees to complete a self-assessment study questionnaire. The information reported on the questionnaire helps the tutor choose and plan appropriate tutoring strategies

Screening and interviewing applicants. The tutee interview assesses both tutee expectations and the nature of the student's problem. If a tutee says, "I don't understand chapter 4 in my textbook," short-term tutoring may be appropriate. If, on the other hand, a potential tutee is performing poorly in all classes and is referred by an instructor who suspects the student needs assistance in reading, it is advisable to request a diagnostic assessment before assigning a tutor. Tutees should be screened in an attempt to assess their actual need more fully.

A teacher's opinion should not be the only basis for assigning tutoring assistance. Coordination and articulation between special programs are essential. Many schools use reading specialists and learning disability specialists to assist in or conduct assessments that ascertain if a student has a basic learning problem. If the assessment indicates that peer tutoring is not a proper solution at that point, the student may be referred to special education departments or to other agencies.

Secondary programs lacking adequate special education facilities should investigate nearby universities that may be willing to provide diagnostic write-ups. Additional local resources might be these:

- Vocational rehabilitation centers

- Public health agencies
- Hearing and vision screening centers

Matching and Assignment

Student selection procedures are planned and implemented to help identify students who best meet program criteria for becoming tutors and tutees. After these participants have been identified, guidelines must be developed for matching tutee and tutors.

Points to be considered in matching. Compatibility is a major factor to be considered in matching tutors and tutees. Candler, Blackburn, and Sowell (1981) indicate that the most important consideration in matching tutors and tutees is selecting students who can work well together, which involves more than social compatibility. Other characteristics to consider include tutor competency in the subject or skill area, the tutee's preference, cultural differences that may impede tutoring, and different learning styles. Pairing students of the same sex in one-to-one tutoring situations (particularly at the secondary level) can prevent sexual misconduct problems.

> An alternative view is practiced by Gateway Technical Institute in its nonmatching, drop-in approach, which forces tutees to gain experience interacting with people who are different from themselves. Program staff feel that an unmatched situation, in which a tutee must relate to different tutors, is less likely to foster dependency.

It is also a good idea to use tutors who are older than tutees whenever possible, as some students resent help from a same-age peer.

Tutor-tutee interview. It is often beneficial for a tutor and tutee to become acquainted during an informal meeting. It may be necessary to introduce several tutors to one tutee before a final match is made. Observation of the tutor-tutee interaction by the coordinator will assist in ensuring a compatible match. Tutors and tutees should be informed, at this point, about their right to terminate the ensuing match at any time if the relationship is not productive.

Tutor-tutee assignment. After the tutor and tutee have been matched, the time and place of tutoring can be scheduled. It may be necessary to coordinate with the person in charge of room scheduling (often the vice-principal or registrar) when assigning tutoring sites in order to avoid scheduling conflicts with other school activities. Arranging for tutoring sessions to be held at the same prearranged location and selecting sites near the subject-area classroom or tutoring center ensures that staff can assist with questions or problems that may arise during the session and resource material will be readily available. Tutoring sites should be away from distractions.

> At Mesa Community College, the tutoring sessions were initially held in a fairly private location in the Learning Center. Later on, the tutoring program was moved to a library area that is more visible and accessible to students. Staff felt that the relocation would have a positive impact on students' willingness to seek tutorial assistance.

If tutoring is to be done in a central location (tutoring center, resource center), typical planning considerations may include the following:

- Identifying mutually agreeable free time for tutor and tutee
- Assigning space and time within the tutoring area
- Providing a monitor for the scheduled time
- Communicating schedule to tutor, tutee, and monitor
- Securing parental permissison (for tutor and tutee), if required by school policy

If tutoring is to be done within the classroom, one or more of the following actions might be required:

- Communicate the tutoring schedule in writing to tutor, tutee, and teacher.
- Secure parental permission (for tutor and tutee) if required by school policy.
- Arrange a meeting with teacher and tutor if tutor is not enrolled in the class.
- Determine if barriers (curtains, screens, carrels) are needed to separate the tutoring pair from the rest of the class.

When assignments are made, all participants (tutors, tutees, teachers, and monitors) should be provided with the projected schedules for a specific period of time (weeks, months, or semesters). The schedule should include the name and number of a person to contact in case of absence or illness and the dates for submitting reports, logs, and evaluation forms. Thoughtful planning for matching and assignment, coupled with good communication, often prevents unnecessary delays caused by having to change tutors and or reschedule tutoring times.

Routine Tasks

In addition to a coordinator's operational responsibilities, many other tasks must be attended to on a daily and/or weekly basis. The number of tasks will vary depending upon the size of the program. The coordinator may use student assistance in areas such as checking tutoring sites for needed repairs (e.g., light bulb replacement) or locking and opening tutoring rooms according to schedule. Regardless of the program size, daily managerial tasks will exist and should be delineated in a job description for a program coordinator. Some typical tasks are described next.

Monitoring tutoring sessions. Some school policies require that a responsible person be present at the tutoring location. If so, tutoring sessions should be monitored by the coordinator or by a person designated by the coordinator. If tutoring is done in a central location (library, tutoring center, and so forth), appointed monitors (teachers, counselors, and other staff) can be assigned by a schedule. If, on the other hand, tutoring occurs within the classroom, the teacher is generally responsible for monitoring the sessions.

Supervising tutors. Aside from monitoring, tutors need supervision and guidance. Tutors need to know if they are fulfilling their responsibilities to their tutees. Coordinators should assess the

tutors' effectiveness, reinforce the importance of the tutoring task, and give feedback regarding the effectiveness of the tutoring methods used.

Meeting with teachers. If classroom tutoring is being used, the coordinator should meet with all instructors on a regular basis (weekly, biweekly, or bimonthly) to determine growth, progress, and problems. Close communication with instructors will secure their support for program continuation.

Reviewing logs. The coordinator reviews time and performance logs to determine if tutoring objectives and schedules are being met.

Checking time sheets. If tutors or teachers are paid for their program participation, the coordinator is responsible for checking time sheets and signing them before they are submitted. A complete system should be established to comply with all State and Federal tax requirements.

Monitoring upkeep of facilities and equipment. Typically, the coordinator is responsible for seeing that janitorial services are performed in all tutoring areas and that any necessary equipment repairs are ordered. Regular inspections of facilities and equipment is important in controlling loses, breakage or theft.

Communicating program information. Should it be necessary to change the program, the coordinator should communicate the change to everyone involved. A standardized memo or newsletter is helpful in keeping staff up-to-date.

Communicating program progress to the school community. Periodic progress reports should be provided to the school community (administration, staff, and students) by placing articles in school newspapers, sending letters to parents, and giving written reports to administrators and staff. Such reporting not only creates an awareness of what is going on but also generates interest in the program, thus ensuring future participation and support.

Preparing reports required by institution or funding source. Typically, these requirements are specified in guidelines generated by the institution or funding source. The coordinator should be familiar with deadline dates, program forms, and evaluations so that required and timely information is prepared and reported.

Implementing public relations. The coordinator may be responsible for communicating the success of the program to various publics. This might call for working with all media sources such as newspapers, television, and radio. Addressing groups within the community and on campus might also be necessary, as well as writing promotional brochures and flyers.

Evaluating the program. Program evaluation is an ongoing task, beginning with program inception. All program components and participants should have a chance to evaluate the program and provide the feedback necessary to determine program effectiveness and to plan for changes.

Developing program policies. The coordinator should investigate existing school policies to ensure that new policies developed for the peer tutoring program do not present conflicts. Program policies should be communicated in writing to all program participants.

Providing accessibility to tutoring site. When out-of-classroom tutoring is done, someone has to make sure that students have access to tutoring sites at their scheduled time. The coordinator should arrange to have all rooms open when needed.

Locating and maintaining program equipment. Any project materials and/or equipment (such as audiovisuals) should be inventoried and a system developed for keeping track of them. Periodic checks should be made for needed repairs.

Communicating with parents. At the secondary level, school policy may require parental approval for tutoring or being tutored and additionally for the release of any information from a student's personal record file (e.g., test scores and grades). The coordinator should maintain communication with parents regarding students' progress or any problems.

Program Evaluation

More competitive programming, coupled with a decrease in available resources, has increased the need for vocational educators to justify their programs' existence through comprehensive evaluations. Such evaluation is also necessary to ensure continued program improvement and consistent group support. Evaluation should be an integral part of any peer tutoring program, beginning prior to program planning and continuing throughout the program operation.

Types of Evaluation

Three types of evaluation are fundamental to the operation of any peer tutoring program. The first, needs assessment, is actuated when the need for peer tutoring is being identified to establish targets and justification for a program. The second type, formative evaluation, takes place during the implementation and operations phase. It focuses on making midcourse alterations or changes in the program in order to attain specific goals and objectives. It is also used to measure student progress toward individual program objectives. Formative evaluation is concerned with assessing all program components and student progress and satisfaction, tutor effectiveness and satisfaction, teacher satisfaction, and operational concerns.

Summative or final evaluation is the third type of evaluation and takes place at the end of the program or at the end of a predetermined unit of time (the end of a fiscal year or project year). It measures the effectiveness of the program in terms of overall student achievements and achievements of goals and objectives.

The three types of evaluation are equally important in discerning program strengths and weaknesses. Planning for evaluation must be concerned with (1) identifying what information is needed, (2) locating or developing evaluation instruments, (3) collecting and analyzing data, and (4) reporting program results.

Identifying What Information Is Needed

It is important to determine the types of information that program constituents are interested in knowing. Examples of constituency groups are administrators, advisory boards, parents, faculty, funding agencies, and State and/or local boards of education.

> Waukesha County Technical Institute program staff try to keep formal evaluations limited to those required by funding agencies. Tutee and tutor forms are used for cross-checking tutor hours for payroll records and for obtaining reimbursement from funding bodies. Most evaluation-related concerns are taken care of through ongoing, informal monitoring that the program's supervisor conducts.

The early identification of evaluation objectives and information needs prevents the collection of useless data. The following types of information are relevant to program evaluation:

- Number of students served
- Cost per student

- Actual increase in students' grade point averages (GPA)
- Changes in activities, attendance, and course completion rates
- Number of teachers participating
- Increase in rate of teacher participation
- Number of requests for program information
- Number of training sessions
- Volume of information disseminated
- Number of tutors trained
- Number of tutees who complete program
- Dropouts and causes

Locating or Developing Evaluation Instruments

Evaluation instruments include questionnaires, surveys, attitudinal scales, and cognitive and performance tests. The choice of the types of instruments will vary with individual program needs and evaluation objectives. Participants' reactions to the program are often measured by evaluative tools such as evaluation forms for tutees, tutors, teachers, and the overall program.

> Mountain View High School's program director, along with the school district's department of research and evaluation, developed three instruments to evaluate program effectiveness.

Standardized tests used to measure achievement may not be sensitive to the amount and kind of learning that has taken place in tutoring sessions. Special tests may have to be designed based on program-related material. Instructors who prepare tutoring materials should be involved in test construction.

> The teacher inservice component of the Cleveland Vocational Reading Content program prepares teachers to develop informal tests.

Collecting and Analyzing Data

The coordinator typically is responsible for determining the kinds of data relevant to the evaluation of a program. Data should present evidence of both the quantity and quality of program

outcomes. Data necessary for program revisions or adjustments (formative evaluation) may include the number of students enrolled and served and the average increase in student grades and tutee satisfaction. Formative evaluation data should be collected intermittently throughout the program operation phase to improve procedures and practices.

Summative data, such as overall improvement in student grades, reduction in failures, increased attendance, or increased satisfaction across the program, should indicate whether or not program objectives have been met. Other informal assessment measures include interviews, compilation of data from logs and reports (daily, weekly, monthly), and observation reports. This type of information is often as important to the assessment process as that collected by more structured methods.

> Chicago's peer tutoring program uses extensive evaluation forms and procedures to identify problems as they arise. The evaluation procedures include application forms, weekly visits with tutors, biweekly coordinator/instructor meetings, monthly activity sheets, complaint forms, termination forms, tutee contract, work logs and payroll forms, instructor evaluation forms, program evaluation and self-assessment forms (tutor, tutee).

If students are to be measured on the degree of progress toward meeting cognitive or affective objectives, preassessment is necessary to obtain baseline data from comparison with data collected after the completion of tutoring. The analysis of data may range from summarizing subjective impressions to conducting statistical analyses. The procedures chosen will depend upon the nature of the data and the needs of the constituent groups discussed earlier. Data analysis can be performed by hand or by computer.

Reporting Program Results

Plans should be made regarding the reporting of evaluation results. Reporting methods include oral presentations and written reports, depending upon the relevancy of specific reported materials to constituent groups. Results may also be reported to different audiences through media such as newspaper articles, student presentations, and teacher-staff publications in journals.

> Mountain View's peer tutoring program has been evaluated by the North Central Evaluation Team as part of its *Emerging and Unique Program* effort. The program has also attracted national media attention. Both NBC and CBS have filmed and aired videotapes of the program.

Modifying the Program

The evaluation results should be used by the coordinator, in concert with appropriate groups, as an information base for making decisions about the program. The information base is a per-

manent foundation on which revisions can be made. Continuation or expansion of the program will depend upon how effectively objectives have been met and how well the outcomes can be documented. The identification of program strengths and weaknesses enables rational decisions to be made regarding whether the various program components should be continued, revised, or dropped.

CHAPTER II

PEER TUTORING PROGRAMS

The following section presents an in-depth look at 13 individual, diverse peer tutoring programs. They illustrate the wide variety of objectives and student audiences that peer tutoring can address successfully. Similarly, they demonstrate the many program options, formats, and procedures available to those wanting to establish a new peer tutoring program or modify an existing one. Individually, the program reports provide insight into different settings in which peer tutoring can be used effectively and different program designs that have been developed to meet the needs of specific student populations and institutions.

The 13 programs represent secondary and postsecondary institutions that typically offer both academic and vocational or technical education. Program emphasis, special audiences served, and tutorial approaches are varied. The one message that emerges from the site visit reports is that there is no perfect peer tutoring program model. Final program design is more likely determined by program objectives, the population to be tutored, available facilities, and time and funding constraints than by any exemplary program model.

Chicago City Public Vocational Schools

Chicago, Illinois

The city-wide peer tutoring program in Chicago's public vocational schools is one of several support services available for vocational students. The program is directed by a Student Services Corporation for the Disadvantaged housed in the Central Office of the city's school system. The Corporation, is one of five program service areas administered by a Vocational Support Services Team that was established in 1982 under a million dollar grant from the Illinois State Board of Education. Other program components include vocational assessment and evaluating, vocational education for the handicapped, vocational education for the Limited English Proficient (LEP), vocational education for the disadvantaged, and, vocational articulation. The bureau was formed to meet the mandate that 30 percent of Federal funds received be spent for support services to special needs students in vocational education.

The peer tutoring program was established to serve Chicago schools with high dropout and low attendance rates. Part-time vocational advisors in the high schools provide supervision and guidance to the peer tutors who provide tutorial help and support to disadvantaged, handicapped, and LEP students in vocational education.

The program has two major components that may be employed individually or jointly in a school, depending on the needs of instructors and students. The basic component is in-class, one-on-one peer tutoring in any aspect of vocational classes. The second component is a drop-in tutorial center to assist students with their academic classes. Nine Chicago schools currently have centers that offer one-on-one or small-group tutoring and computer-aided or computer-managed instruction. Paraprofessional aides may assist with tutorial tasks in both components.

Program Development and Administration

The peer tutoring program in Chicago's vocational schools was initiated to help vocational instructors provide more attention and individualized instruction for academically disadvantaged, handicapped, or LEP students and to offer support and reinforcement to students needing specialized academic assistance. The program operates in 39 school sites and is coordinated from the central administrative office. Some elements of each school's program are standardized (e.g., record keeping, staffing, and overall program objectives). Other elements are unique, depending upon the school's instructional environment, administrators, instructors, student populations, and equipment and resources.

Program planning tasks occur at both the central office and the individual school. The central office's Student Services Corporation (SSC) coordinates and monitors the program in schools where it already exists and plans and develops new programs.

The VSST staff perform the following tasks:

- Controls the budget and allocated resources
- Plans and provides inservice training for the vocational advisors, administrators, tutors, and other staff
- Develops reporting forms, manuals, and training materials for program activities

- Plans for and provides ongoing technical assistance for administrators and program staff
- Monitors program efforts and provides problem-solving assistance
- Implements major decisions and policy
- Assists vocational advisors and school administrators with public relations

The individual school administrator works with the VSST staff in selecting a vocational advisor, who spends about 1 hour per day, coordinating program activities and supervising student tutors. The advisor is paid extra for these duties, which are in addition to regular teaching duties. The advisor's tasks and responsibilities include the following:

- Coordinates with the principal and VSST staff on program planning and implementation
- Publicizes the program among school staff and instructors to build up enthusiasm and recognition
- Serves as liaison and troubleshooter for vocational instructors who utilize tutors
- Recruits, selects, and hires tutors
- Provides ongoing technical assistance and training for tutors
- Manages paperwork and reporting required by the central office
- Conducts periodic evaluation of tutors, teacher satisfaction, and program effectiveness

The tutoring program is funded under the Vocational Education Carl Perkins Act of 1985. Program costs cover wages and inservice training for the vocational advisors and the tutors, orientation and training materials, and periodic meetings for the tutors throughout the school year on special interest topics. Schools with drop-in centers are provided computer equipment and software support. For the actual tutoring, classroom texts and teacher handouts are used with occasional expenditures for special equipment (e.g., tape recorders or visual aids).

Program Functions and Operation

There is a strong emphasis on selecting and hiring tutors and on building positive, effective relationships with instructors, who have a major role in recruiting and selecting the tutors who will work in their classrooms.

Students who wish to become peer tutors usually must have completed the course in which they will be tutoring with at least a B and have a recommendation from an instructor in the content area. Each student must also complete an application form and be interviewed by both the vocational advisor and the classroom instructor. During the interview, the advisor considers the following:

- Speaking clearly
- Attitudes toward tutoring

- Attitudes toward LEP, handicapped, and academically disadvantaged individuals
- Appearance and neatness
- Punctuality
- Cooperative relationships with teachers and advisors
- Ability to hold friendly, informal conversations with teachers and supervisors
- Ability to accept constructive criticism, follow directions, and work without direct supervision
- Ability to relate to fellow students

After final selections are made, tutors meet as a group with the vocational advisor and the content area teachers for an informal orientation workshop that may include the following activities:

- The vocational advisor provides in-depth information about the program's purpose and objectives
- Teachers outline what they expect from the tutors
- Student tutors discuss the expertise they can provide

The vocational advisor also explains procedures, answers teachers' and students' questions, and generates enthusiasm for the program.

For the in-class tutoring, the instructor is instrumental in ensuring a compatible match between tutor and tutee. An effort is made to match tutors and tutees on the basis of personality, schedules, and subject matter, and when LEP or handicapped students are involved to ensure sensitivity to cultural, ethnic, and language differences, and awareness of particular handicapping conditions. Frequently, tutors who work with LEP or handicapped individuals come from similar backgrounds. If problems develop with a tutor-tutee match, both the instructor and the vocational advisor are available to help resolve the problem or create a new tutor-tutee match.

Tutors typically meet with a tutee once each day for 1 hour. The length of time a tutee receives assistance is flexible. The tutee, with the content area instructor and the tutor, determines when tutorial help will be discontinued. At the drop-in centers, where tutees frequently refer themselves for tutoring, the tutee is the one who usually decides how long to remain in the tutorial program.

Although tutoring typically occurs on a one-to-one basis, small groups of three to five tutees are occasionally used, especially for LEP tutees, when several students experience similar problems or when introductory material is being examined. The tutor provides reinforcement for the instructor's explanations, supplements classroom work, supports students having difficulty mastering a concept, or offers reassurance. These objectives may be accomplished by reading materials to the students, providing feedback and encouragement on class work and performance, reviewing the instructor's explanations, and assisting with the performance of related tasks.

Tutors utilize class texts and instructor handouts and may prepare special materials for the tutee. Most instructors review accomplishments and discuss the material and instructional

approaches daily with their tutors. Tutors also meet weekly with the vocational advisor to discuss the tutee's progress, explore alternative strategies, review potential problems, or develop further special methods for working with special students.

Program Evaluation and Improvement

Chicago's peer tutoring program has a strong monitoring and evaluation component. An extensive series of reporting and evaluation forms and procedures enables the vocational advisor to identify problems as they arise and to have a strong information base to use when making changes. The following are used:

- Application forms for potential tutors and peer tutor information packets
- Weekly visits with tutors
- Biweekly meetings with participating instructors
- Monthly activity sheets for recording meetings with tutors and instructors
- Formal complaint and termination forms for tutors who must be dropped from the program
- A formal tutee contract
- Formal work logs and payroll forms
- Formal monthly and annual instructor evaluation forms
- Tutor program evaluation/self-assessment forms
- Tutee program evaluation and tutor evaluation forms

From observations and evaluations by SSC staff, the peer tutoring program appears to benefit and satisfy most participants, including administrators, instructors, tutors, and tutees. Administrators indicated that regular classroom instructors can spend more time individually with all students in a class because they do not have to focus exclusively on the special needs student. With a tutor, the special needs student receives more instructional help and is able to participate more completely in the learning process. Also, tutees are able to receive more hands-on practice in their particular occupation.

Tutors reported an improvement in their own skills as a result of teaching someone else, the development of better work habits, an increased sense of responsibility, and heightened self-esteem and prestige among their peers. Instructors indicated that the tutors helped them to understand special needs students more easily and provided guidance to them in interacting with the students.

For a program such as Chicago's to succeed, extensive planning, coordination, and evaluation are needed. Among the elements that need attention are the following:

- Strong administrative support at the local school level

- The vocational advisor's personality and position within the school (For example, someone who is respected by and familiar with teachers, counselors, students, and support staff, is a good choice.)
- A strong public relations effort to generate support and enthusiasm among teachers, students, and administrators
- Freedom for instructors to choose the tutors with whom they work
- Guidelines for instructors in choosing tutors
- Orientation and inservice training for all levels of staff involved, including clerical support staff, data entry personnel and programmers, counselors, special department heads, resource specialists, and district research staff
- Guidelines for teachers and tutors in identifying and developing strategies for special population groups
- Staff and tutor sensitivity to and respect for varying cultural and ethnic groups
- Ongoing training for tutors
- Tasks for tutors that they can handle confidently and independently
- A strategy for working effectively with other student tutoring groups in a school
- Recognition and rewards for tutors, such as wages, academic credit, an end-of-year conference, and outstanding tutor awards

Chicago's program is expanding. Both the number of drop-in resource centers and the number of schools offering in-class vocational peer tutoring are growing. Additionally, in existing programs, instructors are requesting more tutors. The budget has been increased, and future program efforts will largely be focused on dealing with the problems that inevitably accompany rapid growth.

In addition, however, attention will be devoted to the following:

- Effective software for drop-in centers with computer-assisted instructional capabilities
- More service training for a wider variety of local school staff
- Inservice training offered to vocational advisors and tutors, more specialized inservice work on needs of special population groups, motivational training to build morale and strengthen program identity
- Stronger coordination and articulation between the peer tutoring program and other services at a local school under VSST

Cleveland Public Schools Vocational Content Reading Program

Cleveland, Ohio

The Vocational Content Reading Program is being implemented in selected Cleveland public vocational magnet schools, and comprehensive high schools over a period of several years. The program is targeted to serve high school students whose reading deficiencies limit their vocational success. Vocational content reading teachers and selected vocational instructors jointly plan lessons and team teach. They develop informal testing, vocabulary reinforcement activities, comprehension study guides, and study skills lessons. A yearlong series of preservice and inservice instructional seminars and workshops helps them develop classroom materials and the necessary teaching strategies.

The program, which involves all students in the classroom, utilizes theories and concepts common to other tutoring programs. In the classroom, following whole class instruction, small groups of three to five students of varying ability levels use the specially prepared materials together. Their goal is to reach agreement on answers. In the process, the group members teach, or tutor, each other, under the general guidance and observation of the instructors. Thus, both the small-group technique and the teacher's regular instructional approach are used.

Program Development and Administration

After teachers and school administrators in Cleveland found that many students with adequate scores on standardized reading tests were not able to understand and master the technical language required in high school vocational programs, the Vocational Content Reading Program was developed, under funding and sponsorship of the Cleveland Public Schools, Ohio Vocational Special Needs funding, and the Federal Vocational Education Act of 1963, as amended. This is one of several special needs programs provided for academically disadvantaged students in the district. Although designed primarily for students with reading difficulties, the program strengthens the ability of all students to handle the complex technical and specialized language required in vocational classes.

The program's first year* was both a start-up and a demonstration effort. Approximately 780 11th-and 12th-grade students in 6 high schools and career centers were served. Each school has approximately six vocational teachers and four vocational content reading teachers involved. Each reading teacher worked with six teachers and spent four periods each week in the vocational teachers' related classes and labs. Together, the two teachers accomplished the following:

- Assessed students' reading needs in vocational courses through use of informal inventories developed from technical reading materials
- Planned and team-taught activities that fused reading assistance with vocational content within each teaching unit,
- Compiled a file of instructional activites to guide students in the reading and learning of technical texts and material.

The program coordinator conducted a 15-hour preservice workshop for the reading and vocational teachers prior to the start of the school year and, during the school year, gave approximately

*The program prior to 1984 was a remedial lab program. 1984 was the first year of the Content Reading Team Teaching approach. Continued sponsorship will depend upon a formal evaluation, student performance, and teacher satisfaction.

18 hours of follow-up inservice workshops. Each follow-up workshop addressed a new strategy. Once presented, strategies were comfortably established in the classroom. The topic of small group instruction and peer tutoring was not addressed until the second semester. Topics and activities addressed at the workshops included the following:

- Developing informal tests to assess student reading problems; evaluating textbooks and analyzing readability
- Developing and using technical word recognition activities
- Assessing student comprehension and study skills; preparing special student study guides
- Using small group instruction in the classroom; developing and using structured overviews, leveled study guides, prediction guides, and other study guide formats
- Critiquing and revising teacher-made instructional materials
- Developing and using tests that reflect student study guide concepts and formats
- Utilizing peer evaluation techniques
- Compiling files of completed lessons, study guides, and tests
- Completing an evaluation of the program and program materials

The faculty inservice was highly structured. Typically, the program coordinator, along with vocational reading teachers and content teachers, planned and presented actual training material. Between the formal inservice sessions, the reading teachers worked individually with program participants to develop content reading and study guides specific to each technical area and student needs.

The program coordinator has had background and experience with a similar project, Vocational Reading Power, developed at the University of Minnesota. The director of that program provided technical assistance in the development of the workshop sequence and preparation of preservice and inservice training materials.

The first year's teachers are to participate on a wrap-up and evaluation workshop at the close of the school year and be introduced to the use of computers. At the beginning of the program's second year, they will attend a refresher course and receive training in individualized learning styles.

Additional support was given to the Communication Skills Improvement Program teachers who operated remedial labs in the school buildings. The Vocational Reading program provided supplementary relevant reading materials, instructional equipment (tape recorders, card readers, controlled readers, and IBM computers and printers), and individual and small-group instruction to assist students with the transfer of basic skills to vocational and technical materials.

Program Functions and Operation

During the preservice and inservice training, the program coordinator established the general schedule, outlined the topics, and provided a thorough overview and orientation. Throughout the year, vocational reading teachers conducted inservice sessions. However, the content teachers are responsible for determining when small group activites are most appropriate and how to organize and use them.

Typically, when the small groups are used, the teacher presents a preview and explanation which orients the class to the lesson. This explanation usually includes important concepts and essential vocabulary. Equipment and essential hands-on procedures may be displayed or demonstrated, or other instructional aids such as filmstrips or computers may be used to illustrate the materials. The students then review vocabulary and using their class texts, independently complete study guides. When individual students appear to have difficulties, the instructor assists them.

The small groups then assemble and are given the following directions:

- Compare your study guide answers in the small group. Use the text and study guide to show other students why you selected your answers.
- Try to reach agreement within your group on items. However, do not change your answer unless you are sure you made an error.

The instructor monitors the groups to note areas of disagreement and then leads the class in a discussion of disputed study guide items. A follow-up activity enables individual students to apply the concepts and use materials that were presented in the small groups and class discussions.

Although focused on reading comprehension, word recognition, and vocabulary building, the program is designed to strengthen students' abilities to handle complex technical language and thus to strengthen overall academic performance. Students having difficulties benefit from the peer interaction and increased individualized attention, and those able to grasp materials more quickly benefit from communicating their knowledge to their peers. The teacher has more opportunity to individualize instruction and learns where major problems lie in the class material. Finally, the whole class benefits from the following:

- The verbal interchange among peers
- Having to use the technical terminology in the small groups and hearing explanations from peers
- Spending time with the teacher only on problem areas

Program Evaluation and Improvement

Because the program has completed only its initial year with a content reading approach, a formal evaluation has not been conducted yet. However, the vocational instructors have conducted pretests and posttests on student performance. A preliminary analysis suggests that the slower readers have made significant gains in their reading performance and overall classroom work. Students at higher levels are also improving, but not so significantly.

The materials that have been developed to support the instructional stategies become a permanent part of the teachers' files and can be used year after year. The consensus is that with these materials, students can keep up with the class texts more easily; receive consistent modeling, even with note taking; and learn study skills that carry over into other subjects. The only negative factor associated with the development of the learning materials is the preparation time. When teachers are initially learning the strategies involved, developing a lesson may take as long as two weeks. However, as proficiency increases, preparation time decreases, and student gains motivate teachers to invest the time.

The materials have proved appropriate and effective for the vocational limited English-proficient (LEP) students and are being translated into several languages. The translated materials will be used for the LEP students by the school system's English-as-a-Second-Language (ESL) and bilingual instructors, classroom tutorial aides, and reading lab specialists.

Although whole class use of content reading lessons was successful for most participants, effective use of the small-group, peer-instruction process has not been free of problems. In-service on the use of small group instruction was scheduled to begin at midyear; program staff believed that had it been used at the beginning of the year, students would have adjusted more easily. Additionally, when small groups were formed, students often preferred to go with their friends, which sometimes defeated the benefit of a mix of learning levels within one group. Also, changes in social and attitudinal development that often occur in a peer tutoring situation were less likely to occur in such groups. Teachers expressed a lack of specific, structured guidelines for the use of the small groups. As a result, some instructors assigned the groups and others allowed students to form their own. In some cases, student absence disrupted the group's continuity and frequently there was unequal participation among group members.

As the program moves into its second year with a group of teachers and students who are experienced and comfortable with the program, vocational reading teachers planned to address more thoroughly the small group tutorial process. Instructors indicated that some areas of their vocational curriculum lend themselves more successfully to the peer tutoring and instructional process than others. Closer attention to this aspect of the program and the development of more structured guidelines for the formation and use of the groups should strengthen the program.

Mountain View High Schoool

Mesa, Arizona

Mountain View, a comprehensive high school serving both academic and vocational high school students, has had a peer tutoring program for 7 years. Its purpose is to help students with reading or learning problems become independent learners. The focus of the tutoring encompasses both content specialty and reading or study skills.

The program was initiated with input from students, parents, and teachers. Strong administrative support provides credibility and broad acceptance among teachers and students.

The tutoring program is an elective for both tutors and tutees. Tutors receive inservice training and their duties and responsibilities are prescibed. There are specific forms to be filled out, and definite expectations must be met by both tutors and tutees. The actual tutoring, however, is flexible and designed to meet the special needs of tutees and classroom instructors. Tutoring occurs both in the classrooms and at a tutoring center. Specialized tutoring for special needs and disadvantaged students is offered. Peer tutoring services may be coordinated with other specialized assistance such as peer counseling, study skills, in-depth reading, and remedial or basic skills instruction.

Program Development and Administration

The program was designed by Mountain View staff and consultants from Arizona State University and other Phoenix-area high schools. Begun 7 years ago, the tutorial program is staffed by a full-time director and an assistant. It operates all day and is part of the school's reading department. The program's administrative staff are also qualified reading instructors.

The program is also assisted by tutor sponsors, who are teachers (frequently newer teachers) selected by the principal from different disciplines. They serve as a liaison with the rest of the school's faculty and hold informal meetings with tutors to assist them with tutoring problems. They also contact teachers to discuss tutees' progress and current instructional needs. The principal stresses the benefits and services of the peer tutoring program during the school's annual teacher orientation and inservice training session. The support of the principal and the tutor sponsors lends credibility to the program and encourages schoolwide acceptance.

Tutorial services are provided in eight small rooms, which are shared with the reading center and two other classes. Consequently, space is limited and not every request for tutoring can be accommodated. Classroom texts are the basic material resources used for peer tutoring.

The program received seed money from Arizona State University. The director's full-time salary is now paid by the Mesa Public School District. Tapes, study guides, and similar materials are provided by Arizona State University's *On Site Program*.

Program Functions and Operation

Tutor candidates are second semester sophomores, juniors, or seniors who have a good overall grade average and at least a B in the course they wish to tutor. They are required to fill out an application form, provide a personal recommendation from a faculty member, and undergo a personal interview. The ability to communicate or explain subject matter and interpersonal abilities, patience, and overall life attitude are the most important selection criteria.

Once selected, the tutors are given 3 weeks of formal training, including a reading test to determine their competence level. Additionally, the following topics are covered:

- Typical reading and study problems they may encounter with tutees
- Various reading and study methods, including the Survey, Question, Read, Review and Recite method (SQ3R), previewing, mastering a textbook, and directed reading activity guides
- Attitudes and feelings toward themselves and others
- Developing lesson plans and creating alternate learning packets
- Methods for observing tutees in their classrooms and completing student observation and evaluation assignments

The tutors also receive informal guidance and direction throughout the semester. At least one tutoring class period per week is devoted to a group discussion among the tutors and the program director or a tutoring sponsor. At these sessions, tutors help each other with work on the development of special materials, and take care of other program-related concerns. They receive a weekly grade for their tutoring and their class participation.

Tutors have specific tasks and responsibilities. They must complete weekly and semester assignments for their tutoring class, attend the tutoring class regularly and punctually, exhibit proper conduct, and be role models for the clients. They must keep weekly lesson plans, weekly tutoring summaries, teacher contact records, and client attendance and grade forms in an organized notebook. They must contact each tutee's instructor weekly, develop and prepare two alternate learning packets for their clients, and grade all work to the best of their ability. Client confidentiality is respected.

Students who need or want tutorial assistance are referred to the program by teachers or counselors. Parents may request help for their children, or students may refer themselves. The final decision rests with the students.

The tutors and tutees are matched according to class schedules and personal compatibility. Tutors may assist several students in more than one subject. They work for at least a semester; some continue throughout high school.

The tutor spends the first week observing in the classroom to determine the student's problems. Afterward, tutoring is typically conducted at the tutoring center during a free period. However, when a student needs actual assistance for laboratory work, the tutor goes to the classroom. Occasionally, when a teacher requests a tutor for an entire class, the tutor sits in on the class and is available to individuals or small groups who may be having difficulty. Such an arrangement typically occurs in a mathematics or science class in which the teacher reserves part of each class for hands-on problem solving.

Most tutor-student relationships last for an entire semester, but exit points are not rigidly defined. Terminations may be initiated by the teacher, the tutees, or the tutor, especially when a student demonstrates improved performance. However, the tutoring program is not operated on a drop-in basis.

Although all tutors are screened on the basis of empathy, patience, and communication skills, those assigned to work with special needs students are chosen for their particular abilities and interest in assisting such students. The program director trains tutors and members of the school faculty and counseling staff who regularly work with special needs students.

Mountain View High School also has a very active peer counseling program; frequently, tutors also serve as peer counselors. When a tutee with special needs requests tutorial services, those peer tutors who also serve as peer counselors are frequently chosen. Similarly, a peer counselor may be recruited to work with a tutor when a special needs student is being helped.

Within the tutoring sessions, the tutors, under the director's supervision, diagnose tutee learning difficulties, reading patterns, and subject-matter problems. The sessions focus on helping students with both long-term reading and study skills and short-term, subject-specific difficulties.

The program director's responsibilities are to interview and select tutors; match tutors and tutees; provide both formal and informal ongoing training and guidance for the tutors; monitor paperwork; document the program's effectiveness; teach a reading and study skills class; and maintain effective, positive relationships with the school's administration, instructors, and parents. The director prepares an informational newsletter for the administration, teachers, students, and parents. Open houses are held periodically at the tutoring facility for parents, teachers, students, and administrators, offering an explanation of the program, refreshments, and a tour of the facility. The director also prepares special tutor training materials and handbooks; the tutors and students contribute actively to the handbooks, two of which are being prepared for National publication.

Program Evaluation and Improvement

The program's director, along with the public school district's Department of Research and Evaluation, has developed three instruments to evaluate the effectiveness of Mountain View's peer tutoring program. Additionally, the program has been evaluated by the North Central Evaluation Team as part of its program. The program has also attracted National media attention. Both NBC and CBS have filmed and aired videotapes of the program.

For the school's internal evaluation process, instruments are administered to tutors, teachers, and tutoring clients. The tutors are regularly evaluated by both the tutee and the tutee's instructor. Additionally, the tutors must pass an examination at the end of the training period before they begin tutoring, and they conduct self-evaluations.

Results of program evaluations show positive benefits. Tutors gain in self-concept, interpersonal skills, respect from both students and teachers, the impetus to keep their academic skills sharp, and the gratification from helping others. Clients' benefits include improvement in both content-specific and study skills, a positive change in self-concept and social skills, and a greater amount of personalized attention. Instructors benefit from the program's interdisciplinary approach to reading and an increased awareness of different ways to help poor readers and offer multilevel instruction.

Overcoming teacher reluctance has probably been the program's most difficult obstacle. The persistent efforts of the program's director over 7 years and the performance of trustworthy and credible tutors have overcome the skepticism of most faculty members.

The major problem confronting the program now is the constraint imposed by a change in the number of credits the State requires for graduation, which means fewer elective credits for the students and fewer tutoring classes (three rather than the former six) each day. Eventually, many student tutoring requests could remain unfulfilled. However, as peer tutoring is one of several instructional strategies at Mountain View, there are still many services available for students with learning problems.

Maryvale High School

Phoenix, Arizona

The peer tutoring program at Maryvale High School is associated with the school's reading department, but the services focus on the tutee's subject matter and span the school's curricular areas. Tutoring is offered for classroom work, study skills, reading and writing skills, and learning skills.

The program began under the Indian Youth Advisors Program to increase the retention rate for Indian youth and upgrade their reading skills. Although the funding was not categorical, it was targeted toward the Indian youth. Currently, changes in funding priorities are affecting the program's existence, and new funding must be located.

Program Development and Administration

Maryvale's peer tutoring program has operated for three semesters. The school's administration decided to utilize peer tutoring as a means of addressing the problem of high dropout rates and lower reading levels among Indian youth. Before the program could begin, the planners had to locate funding, prepare a grant application, and put the administrative and operational mechanisms in place.

Originally, the tutors were volunteers from the National Honor Society. Building on previous experience with a peer tutoring program, the coordinator preferred to start on a small scale to build faculty and student support, rather than risk credibility by not meeting promises or obligations. The program has evolved into a credit course for both tutors and tutees, and it is currently administered by a full-time coordinator. There are 25 tutors and 60 tutees. No tutor has worked with more than three tutees over the course of the semester.

The tutoring sessions occur in a special resource room in the reading department with tables and seating for up to four or five students. The coordinator's office is located separately at the back of the room.

At present, materials are limited. Reading department personnel and content teachers have begun developing supplementary subject-specific reading materials for tutors. If new funding is located and the program continues, developing content-specific reading material will be a priority. The coordinator has written a training handbook for the tutors to use during their formal training period.

Program Functions and Operation

The peer tutoring coordinator screens and selects tutors. They are recruited through teacher and counselor referrals, and some students apply on their own initiative. The coordinator considers grade averages, intellectual independence, and initiative in selecting tutors who can work independently, develop insights rapidly, and tutor a variety of subjects. Additionally, emphasis is also placed on patience, diligence, and interpersonal communication skills.

Before working with the tutees, tutors receive 2 weeks' formal training to acquaint them with program procedures and with many of the situations they will face. Later, weekly informal training with the coordinator reinforces their early learning. The coordinator allots two class periods per

week for working with the tutors. One period is spent on any program-related business and gives tutors the opportunity to interact with each other. The second is devoted to training needs and personal preparation time for the tutors. Although tutors are not required to remain in the program, they are encouraged to tutor for more than one semester. Returning tutors have provided leadership and guidance for new tutors.

Most of the tutees are referred by teachers or counselors, but some refer themselves for assistance. Because tutees receive credit for tutoring, their participation is structured. Tutors assign points to the tutee for every tutoring session. A tutee can receive up to 20 points each day for such activities as coming to the appointment on time; bringing required books, papers, and materials; using the tutoring time effectively; and working with the tutor on the assignment.

Most of the tutoring assistance occurs on a one-to-one basis. However, according to the subject matter or tutee needs, small group tutoring is sometimes used. The length of the tutoring session itself also varies. Whereas most sessions last for a full period, when appropriate, the tutoring session may last for only 20 minutes; for the rest of the period, the tutee works individually on the lesson discussed with the tutor.

Some tutees receive help in only one class, whereas others receive assistance in several classes. The tutee may work on a homework assignment with the tutor or concentrate specifically on reading skills. Before tests, extra time is spent reviewing the material that will be covered and practicing test-taking techniques. Throughout the semester, tutoring sessions are scheduled around test dates and special projects to provide extra help and support.

Contact between tutors and instructors is encouraged. However, the tutor, to avoid embarrassing the tutee, never enters the tutee's classroom when the tutee is present. At the beginning of a semester, a questionnaire is sent to tutees' teachers asking if they are willing to meet with a tutor. If they are, an open-door relationship typically develops between tutor and teacher. As the program's credibility and effectiveness have spread, more teachers willingly take time to coordinate with tutors. The primary factor inhibiting such coordination is lack of adequate free planning time for both teacher and tutors.

Program Evaluation and Improvement

A formal evaluation of Maryvale's peer tutoring program was being prepared at the time of the site visit. Among the factors being examined closely were daily class attendance, the school's attrition rate, reading skills, and overall class performance. Preliminary data comparing the first half of the second semester to overall first semester tutee performance showed a decrease in the number of withdrawals from school and classes dropped, a reduction in the number of classes failed, a slight decrease in the number of classes for which tutees received a D, and a sizable increase in the number of classes for which tutees received a C or better.

As the evaluation continues, program monitoring data will be compiled and analyzed to illustrate specific goals and objectives being achieved. Included will be such areas as tutor and tutee satisfaction; student benefits and behavioral changes; teacher and staff satisfaction; and progress made in reading, study, and content skills.

The administration already supports the peer tutoring concept. However, no immediate local funding was available to offset the loss of the categorical Indian funding. Consequently, evaluation data, along with the administration's endorsement, will be used to seek district funding or a special grant from private, State, or Federal sources.

Based on previous experience, Maryvale's coordinator emphasizes the following strategies:

- Build solid and effective rapport with faculty.
- Train tutors to use tact and professionalism when interacting with the faculty.
- Discourage tutors from simply completing tutees' work.
- Return promptly teachers' editions of texts and master copies of tests that instructors provide.
- Publicize program efforts to the local school boards.
- Train and support tutors adequately.
- Allow time to plan, review, and improve the program.

The direction of the Maryvale program is not certain. However, there are several objectives for the future:

- Coordinate more with the content teacher to prepare special learning assistance materials.
- Secure local funding and help other schools in the district develop peer tutoring programs.
- Build more planning time for tutors and teachers into the program schedule.
- Encourage tutor retention.
- Add specialized program services for limited English-proficiency students if the student population shifts radically.

California Medi-Corps Program

Chico, California

The Medi-Corps program was initiated in the summer of 1974 under the auspices of the State Department of Education, Migrant Education Section, and conducted by the Butte county California Superintendent of Schools. It originally served college students but has expanded to incorporate secondary-level juniors and seniors who are interested in health careers.

At the varied sites throughout California, the high school youths serve as health tutors or educators in summer school classes for migrant children in grades K-12 who are taking classes in health, biology, and the natural sciences. Under the direction of the program site coordinator, they actually teach specific units in preventive health, nutrition, preventive dentistry, and safety around pesticides. During the 6-week program, corps members are taken on career exploration field trips and conduct job-shadowing experiences with professionals in migrant farm labor centers near the school sites.

Program Development and Administration

The program enriches the educational experiences of migrant youths who attend the summer school classes and gives Medi-Corps participants an awareness of the health needs of farm workers and rural communities. Additionally, the program permits corps members to further their own educational goals and gain real-world exposure to a variety of health-related career experiences. Among the program's performance objectives are the following:

- Corps participants will acquire competencies to help them identify existing and potential health problems that may interfere with the education of the migrant child.
- Participants will acquire competencies necessary to provide health education classes and tutorial assistance to migrant youth and their families in preventive health and dentistry, nutrition, and safety around pesticides.
- Corps members will become more familiar with existing health and welfare resources that can meet the special needs of migrant youths and families.
- Corps members will assist, as appropriate, in communicating and translating medical or social service documents for non-English-speaking migrant families.
- Corps members will acquire personal characteristics that will enhance their role as models for migrant children and youths.

Each program site has an adult coordinator who is responsible for as many as six schools; each school has four to eight corps members. Besides supervising the corps members, the coordinator is a liaison with the program's central administrative office and community agencies and resources that are important to the health and welfare of the migrant population.

Most of the Medi-Corps members live in their home communities. If a member serves away from home, the program absorbs costs of lodging and food. However, most facilities and resources for the program are educational. Tutoring is done within the classroom. Educational and artistic materials are the usual resources needed for both the tutoring and classroom instruction by corps members. There are periodic meetings and workshops for corps members during the summer at a central meeting facility, typically a school or local college.

Program Functions and Operation

Medi-Corps participants must submit applications and meet several selection criteria. They must be able to speak, read, and write both English and Spanish. They must have experiential knowledge of the migrant life-style, the goal of a health career, and a grade point average of 2.5 or better and must be U.S. citizens or meet resident criteria. Additionally, applicants are selected on the basis of interpersonal and communication skills, flexibility in dealing with various age groups, motivation and leadership skills, and references.

Prior to their summer experience, Medi-Corps participants attend a preservice training program at a State university and cover the following topics:

- The California Plan for the Education of Migrant Children
- Program procedures, paperwork, and regulations
- Problems of the rural migrant family laborers and their families
- Community and nonprofit agencies that provide services to migrant families

A major emphasis of the training is on methods and techniques participants can use in tutoring and in their roles as health educators. In addition, during the 6-week summer session, there are 3 weekend workshops for corps participants at the coordinator's site.

The coordinator visits each school biweekly (when possible, weekly) to observe corps members and discuss with them their progress and special concerns. Typically, the coordinator also meets with the senior teachers and school administrators and reviews the corps members' lesson plans, progress summaries, and samples of materials they have developed. When necessary, the coordinator resolves problems, helps corps members utilize resources of the local community, and coordinates arrangements for field trips. The coordinator is always available informally for emergency or special needs situations.

Corps members work in classrooms during the mornings, providing tutoring and instructional assistance for senior summer school teachers. Both one-on-one and small-group tutoring are used. Typically, as tutors, corps members clarify and reiterate the teachers' materials. Also, English-as-a-second-language techniques, English conversational practice, and basic skills drill and practice are provided as needed.

Corps members also offer supplementary instruction under the guidance of the senior teacher. They prepare the lesson plans, make or locate their own resource materials, and rehearse their delivery, varying techniques to reach different age audiences. Depending on the material, corps members work individually or in small teams.

Corps members also assist with administrative tasks at the school's nursing station. Even though they cannot dispense health treatment or advice, they do help with record keeping, scheduling, and patient monitoring. At the same time, they conduct job-shadowing experiences. Nursing station duty rotates among corps members.

During the afternoons, the Medi-Corps members prepare materials and lessons for the next day, assist with the outdoor portion of the program, meet with the coordinator, or spend time learning about health issues and concerns and the community service network for migrant health

needs. During the late afternoon or early evening, they make home visits. Conducted under the direction of the coordinator and senior program administrators, these visits are made to interest parents in their childrens' education; to expose corps members to the individual health needs of the migrant community; and to promote stronger linkages among the community, the schools, and the migrant farm labor centers.

Program Evaluation and Improvement

There is an informal, ongoing evaluation of each Medi-Corps member that occurs during the coordinator's visits and through daily observations by the senior teacher. Each Medi-Corps participant has 2 formal evaluations during the 6-week period. Additionally, at the end of the summer, there is a postservice evaluation for everyone involved in the Medi-Corps program.

The overall program has a dual impact—on the Medi-Corps participant and on the migrant youths whom the corps members tutor and instruct. The corps participants have appreciated their exposure to the health field and the opportunity for a realistic work experience related to their future ambitions. Those corps participants particularly interested in combining health and working with children spoke very highly of the realistic work experience. Positive feelings from their increased productivity, money that they earn, and more respect from both their peers and families were also reported benefits. Additionally, they reported self-confidence from mastering the tutoring and instructional tasks.

Medi-Corps tutors and instructors serve as role models for the students they tutor and instruct. Especially for the younger students, the role model demonstrates the value of completing high school. The program also provides individualized attention from somebody who understands the students' culture and background. Over the long term, the program offers the advantage to the overall community of trained individuals in the health field who are familiar with the particular needs of rural migrant farm laborers.

Medi-Corps high school students who, as a result of their experience, pursue a career in health education may enroll in a similar program designed for college students, the California Mini-Corps. Students in this program provide migrant youth enrolled in grades K-12 with tutorial and instructional assistance during the school year.

Migrant Education Summer Leadership Institute

Santa Clara, California

Designed for 9th- and 10th-grade high school students, this 2-week residential program is funded under special legislation covering migrant education in California and is administered by personnel from the Santa Clara County Office of Education. Each year the program offers selected high school students combined scholastic instruction in a specific subject area, leadership workshops that develop leadership skills, and career exploration field trips. The focus of a recent program was computer competency. In addition to leadership development training, students received 40 hours of classroom instruction on computers, 20 hours of individual practicum, and several field trips to area business and industries to explore career and employment opportunities.

Program Development and Administration

Throughout the 2-week program, 6 staff persons, typically students from area colleges, work with the high school students, providing tutorial assistance to supplement classroom instruction or to upgrade overall reading and study skills and academic performance. The Leadership Institute was initiated in 1977 to combat high dropout rates among migrant students by providing them with remedial education. In recent years, however, the emphasis has shifted to convincing students to continue their education beyond high school, teaching career awareness, and providing positive role models for migrant students.

Once the program thrust for a particular year is identified, an intensive planning and development effort occurs in three tiers. First, special instructional and curricular materials are developed for the academic portion of the program. Second, seminars, workshops, and presentations for the leadership development portion are planned and organized. The seminar content is examined annually to ensure that student needs are addressed effectively and that current information is presented. However, the annual thrust of the seminars and workshops is on developing personal esteem, cultural pride, community involvement, and leadership awareness. Created primarily for Chicano migrant students, this aspect of the program examines students' cultural heritage and their position within, and responsibility to, that culture. The third aspect of program planning focuses on arranging site visits to local firms and meetings between employed professionals and students. When possible, individuals are chosen who have a migrant background similar to the students'. Thus, the students receive career information, are exposed to positive role models, and are encouraged to set high goals.

Other important elements of program planning include advising migrant parent groups at the school district and regional levels of program plans and activities, publicizing the program, and selecting students and staff. Three or four student conferences are held throughout the year to publicize the program and generate broad-based interest among migrant students. Students from the previous 2 years' programs help program staff with the conferences. They develop the themes and plan and make many of the presentations. In addition to the student conferences, program staff attend and make presentations to parents' advisory group meetings, prepare inservice training materials for staff, and develop staff recruitment strategies.

Program Functions and Operation

Due to its short time span (15 days) and the amount of material to be covered, the program is highly structured. Worked into the schedule, however, is some flexible time for small-group discussions and, in the evenings, individual study. Students and staff live together at a university during the 2 weeks with a daily schedule from 7:00 a.m. until 10:00 p.m.

The students attending the institute are competitively selected through formal applications, letters of recommendation, high school transcripts, and their potential for leadership. There is the expectation that students will become involved in student government or similar types of leadership activities in their home schools. Because students can apply for the program as early as the 9th grade, they are eligible to participate for 2 consecutive summers.

Most of the college-age staff assistants who provide tutoring are from a Chicano or migrant family background, and many have been former Leadership Institute participants. The staff is recruited by a job announcement circulated in the local community and by word of mouth among local educational and service organizations. The program director interviews the applicants and makes final selection using such criteria as overall life attitude, commitment to developing the students' leadership potential, and cultural sensitivity. Staff directly involved with the academic portion of the program must also have subject-matter competency. The staff is provided 1 week of intensive training before the students arrive, using orientation and cultural awareness training materials. Additionally, they are exposed to all of the institute materials and small-group experiential training that will be given to the students.

Once the students arrive on campus, the staff assistants live and interact with them on a 24-hour basis. During the evening periods scheduled for homework and while the students are doing class work during the day, staff members are available to provide tutorial assistance. Although the tutoring may be scheduled, it is more likely to be offered in response to a student's spontaneous request. Some requests for tutorial help relate directly to the academic material. More often, however, the tutorial requests focus on individualized discussions related to the institute experiences or assistance with reading skills, study habits, and locating and using informational resources.

The students are graded on their academic work during the program, so tutorial assistance is important. Whereas some tutoring occurs individually, much of it is done in small groups. The staff has found that the students benefit from the input of others and actually teach each other in the small-group tutorials. Whatever the form of the tutorial assistance, however, the responsibility for seeking and getting help rests with the students themselves. Tutoring is not required, nor is there an attempt to match students with tutors. The aim of the program is to make students responsible for their own education and leadership experience.

In addition to tutoring in academic or personal leadership skills, the same staff members help students locate career-related information and guide them in personal reflection about career choices. This assistance is provided as a follow-up to the students' discussions with industry representatives and the site visits to local firms.

Program Evaluation and Improvement

Formal evaluations are conducted of the program, the staff, and the participants. On the last morning of the program, there is a 3-hour block of time for filling out questionnaires and discussing program benefits, lessons learned, major impacts on the students' lives, and needed changes.

Over the program's 8 years, approximately 1,200 students have gone through the institute. Program participation has influenced school attendance and retention rates. The program's administrative staff is beginning a structured, follow-up study of institute completors. Although time consuming, it is a priority for the coming year.

Because of its short duration, a program such as the Summer Leadership Institute can be difficult to implement or sustain. To ensure success, the following elements are crucial:

- Careful selection of staff assistants, considering attitudes, outlook, and personalities
- Intensive training for all staff
- A match between academic subject matter taught and students' needs and interests
- Balance in the amount of time allocated to the academic, leadership development, and career awareness components
- A cohesive program structure

Program administrative staff say that 2 weeks is a short time for students to absorb so much information; however, they feel that students benefit from the short period because it is such an intensive, highly motivating experience. The enthusiasm with which students leave the institute typically carries over into the fall school terms and the students' course work. Conferences during the school year to publicize the program and recruit new students help reaffirm and sustain the summer's enthusiasm. Additionally, ongoing peer relationships formed during the institute continue into the school year and help sustain and further the program's benefits.

The most likely program change is a strengthening of the career awareness and information component. Career exploration and guidance software for the microcomputer may be added, and more precise assessment inventories and in-depth occupational information are likely to be used.

Los Medanos Community College

Pittsburg, California

Los Medanos Community College's 5,000 students range in age from 17 to 70. Many vocational students are dislocated workers returning to school for retraining and adults attending college for the first time. As a result, many students are underprepared for college work. The tutorial program that has evolved at Los Medanos since the late 1970s is specifically designed to strengthen the reading and composition skills of these students.

The program identifies underprepared students in both general education and vocational courses and provides tutoring for them. The program utilizes a cross-curricular approach and builds upon strong lines of communication that exist among the administration, language arts faculty, and content faculty to assess and prescribe tutorial assistance in reading and writing for all courses.

Program Development and Administration

In the mid-1970s, technical and occupational program instructors and language arts faculty members became aware that deficiencies in reading and writing skills blocked students' progress in their vocational preparation, contributed to high attrition from vocational courses, and were a source of complaint and criticism from area employers who hired the college's students. Additionally, proficiency test requirements at that time, developed by the school's language arts faculty, bore little relevancy to the students' occupational or vocational course work. As a result of these concerns, the college administration initiated a special Tutorial Outreach Program designed to strengthen students' reading and writing skills.

Under the Tutorial Outreach Program, the vocational faculty, with feedback and assistance from the language arts instructors, developed tests of career-relevant reading and writing skills. Within the first 2 weeks of each semester, students in all general and vocational education courses are screened, using the in-class tests. Each test consists of a short reading sample (selected from course materials), a series of comprehension questions, and a question requiring a written response. Instructors evaluate their students' performance. Students whose screening reveals deficiencies are urged to work with a reading-writing tutor assigned to that specific course. The few students with severe literacy problems are referred for special in-depth testing and remedial courses.

Currently, funding comes from vocational education legislation, the State's Extended Opportunities Programs and Services, and college operating funds. Staffing for the program includes the following individuals:

- Content instructors to provide leadership and training for tutors in content-specific material
- Language arts instructors to provide literacy, writing, and study skills training for tutors
- Paraprofessionals to assist with record keeping, instructional assistance tasks, and materials preparation
- Trained tutors

Program Functions and Operation

Tutors who are selected by individual faculty members must recently have completed the course for which they are tutoring, demonstrate strong reading and writing skills, and relate easily to others. Tutors are paid hourly wages and are trained under the guidance of the language arts faculty.

Tutors help identify students' problems, and address their reading, writing, and study skill needs as related to course requirements. They also help students identify important information from class lectures and discussions, gather information from course readings, and develop and write college-level essays. Additionally, under the guidance of language arts faculty, tutors assess students' progress and develop individualized strategies for each student.

Each of the 45 tutors works approximately 10 hours per week. They are hired to work specifically with students from a particular class, and the tutoring times are established according to course needs and student availability. For the vocational classes, tutoring typically occurs during the extended laboratory periods and may be conducted one-on-one or in small groups. For those rare instances when tutoring cannot be conducted during laboratory sessions, special arrangements are made between the tutor and the student. Typically, the content faculty member meets weekly with the tutor to plan the tutorial approach and discuss the tutee's progress.

All tutors enroll in a beginning or advanced training course in which they remain as long as they continue tutoring for a total of 2 semesters. Typically, the first semester's training covers a variety of tutoring techniques and interpersonal skills; developing sensitivities to special problems and populations; and acquiring techniques for diagnosing and responding to reading, writing, and study problems. Second semester training provides tutors with a series of training options: learning disabilities, problem solving, processes of sciences, etc. A tutor can be upgraded to the level of a Master tutor who engages in special projects and serves as an important resource for novice tutors. The training process provides tutors with continuity and a sense of identity. During the training classes, tutors also help one another solve mutual problems related to tutoring, develop new tutorial approaches or strategies, and take care of ongoing program business.

The students to be tutored are referred by the content teachers. Although the college does not make tutoring mandatory, many content teachers are so in favor of the process that they require their students to spend time with the class tutor.

The instructors themselves are an important part of the tutoring process. In the early 1980s, all vocational instructors were provided with an extensive inservice training program with the language arts faculty to incorporate literacy training into the regular curriculum. They also learned to work with and effectively use classroom tutors. The inservice training is repeated whenever a number of new faculty members are hired. The ongoing presence of a tutor in the vocational classrooms and the students' improved performance resulting from the modified instructional techniques and positive working relations between language arts and vocational staff, ensure that the instructors continue to use the techniques learned from the inservice training.

Program Evaluation and Improvement

The program design includes an ongoing evaluation process that values an assessment of the tutoring program, the tutor, the student receiving assistance, and the supportive training curriculum. Tutors keep track of their own hours and provide weekly written summaries of tutoring

accomplishments and tutee progress. Also, as part of their training seminar, they make semester-long plans for charting goals, objectives, and strategies; throughout the semester actual accomplishments are compared to the plans. Novice tutors are evaluated at the beginning and end of each semester by the content instructor, the language arts faculty, and the tutee. Advanced tutors are evaluated at the end of each semester. With the aid of paraprofessionals, demographic and program information (e.g., grade point averages and retention rates) is tracked and combined with the information from tutor, tutee, and training curriculum assessments to determine the need for the program changes. In conjunction with counseling and the registrar, a computerized system to monitor tutor and students' progress has been developed.

There are also periodic research projects and program evaluations by the college's project management staff or third-party evaluators. Recently completed evaluations included an in-depth survey of the vocational faculty's satisfaction with the program, students' satisfaction with the program, and a year-long, in-depth evaluation of program effectiveness using control groups and quantitative and qualitative data.

This model, which integrates remedial and content instruction from the beginning of a student's enrollment has shown to be effective. When compared to similar students who were not tutored, the tutees showed the following:

- Higher average grades
- Less likelihood of dropping out
- Greater gains in reading comprehension
- Greater gains in writing performance
- Improvement in reading, writing, and study skills
- Greater gains in self-perceived improvement

Other perceived benefits to the college and students include the following:

- Diagnostic and literacy materials specifically designed for vocational and technical occupational fields
- Content specialty teachers who are trained to teach reading and writing and direct, encourage, supervise, and evaluate trained peer tutors
- Greater communication and cooperation between the vocational and language arts faculty and a notable improvement in interfaculty relationships
- Better teaching by the faculty because of the tutorial support
- Tighter integration between students' academic goals and reading and writing development

Specific components of the program ensures its acceptance and success. Both from a policy and a practical perspective, the administration provides credibility for the program, and faculty members follow the administration's tone. Other important program elements include a consolidated operational budget that does not require categorical services for special population groups;

an integrated approach to tutoring that involves training, coordination, and support for both faculty and tutors; and a flexible model for delivering tutoring assistance with strategies based on tutee needs.

Anticipated program changes include naming a coordinator to be responsible for interviewing and hiring tutors and to oversee the day-to-day operations of the program. Faculty will still be able to designate their own tutors, but the coordinator will work closely with them. Other expected changes include the following:

- Consolidating language arts tutoring program, and training with tutoring programs in math and science
- Refining and again offering the instructors' inservice training
- Developing criteria for evaluating potential tutors' writing skills
- Tightening the referral system for students needing assistance
- Expanding the number of tutors and the number of hours available for tutoring
- Publicizing the program and its benefits more widely among the student body
- Providing inservice training for the college's part-time faculty
- Establishing an ongoing record-keeping system
- Establishing a standing committee to assist in tutor training, setting program policies, advising the tutor coordinator, and working with faculty from all curricular areas.

City College of San Francisco Tutorial Assistance Program

San Francisco, California

City College of San Francisco began a small tutorial program in the 1960s. In 1979, comprehensive tutorial services were developed and housed with other learning resources in an area designated as the Study Center. In addition to tutorial services, components of the Study Center include reading and writing labs, study skills classes, and the Center of Independent Learning (COIL) which is a special library collection of self-paced, programmed instructional material and hand-out guides for improving study habits, test taking, and proficiency in subject areas and supplementary texts.

City College of San Francisco uses one pool of tutors to implement three distinctive tutorial services based upon different funding sources, goals, and guidelines. The three tutorial services are campuswide tutoring, the Extended Opportunities Program tutorial component, and services for vocational education students. A three-step process is used to determine the category of tutorial services a student receives: a written application, interview, and review and classification of the application by statistical clerks. Monitoring and documentation required by different funding services have resulted in the development of a computer organized management system for recordkeeping and audit trails.

Monitoring of special services for vocational students is done by clerical staff under the supervision of the program director. Once a vocational student has been identified, a tutor is given an assessment form to determine the tutee's academic and basic skills. If the tutor determines there is a need for more than I hour of tutoring, a referral is made to the coordinator, who, with the tutor, determines appropriate additional services, which may include a second hour of tutoring, referral to the writing and/or reading labs, and use of COIL material or computer-assisted tutoring.

As a result of this assessment process, the Academic Basic Skills Computer Assisted Tutorial (ABCT) project was developed to provide intensive tutoring in grammar, spelling, mechanics of English, arithmetic, and algebra. Vocational Education Act (VEA) funds were used to purchase six Apple IIe computers and basic skills software that closely relate to the Study Center's diagnostic prescriptive approach to tutoring. Tutors are trained to select software appropriate for the tutee's level and monitor their progress.

In recognition that many vocational students major in fields that complement their preferred sensory learning mode (i.e., auditory, visual, or tactile) but have trouble in academic courses that require different sensory input, tutors are trained to administer the Learning Styles Inventory and use multisensory methods to tutor vocational students.

Other special services for vocational students include small-group, subject-specific tutorials for limited English-proficient students to improve oral and written communication. Subject areas include data processing, computer programming, accounting, allied health, and medical technology.

Program Development and Administration

Tutorial assistance, with the exception of that provided for laboratory practica, and classroom-based tutoring are offered at a central campus location. For all but a small number of English conversational group tutorials, tutoring is one-on-one. Although both drop-in and matched (or scheduled) tutoring are available, the former has been declining recently because of budget cutbacks. Tutoring sessions occur in a large, open room that also houses the program director's

office, the ABCT program, and the COIL materials. The staff includes a full-time director, one secretary, a library technician, statistical clerks, and paraprofessional aides for ABCT. The college's Diagnostic Learning Center is nearby, and the program staff collaborate with those who direct the reading, writing, and math labs and programs for the learning disabled and handicapped.

Funding comes from a combination of sources, including the Federal Vocational Education Act, California's Extended Opportunity Programs and Services legislation, and college operational funds. Based on 1984-85 data, the number of tutors ranged from 55 to 75, and 1,100 VEA-funded tutees were served for a total of 8,000 contract hours.

Program Functions and Operation

Tutor recruitment begins the first day of school. Recruitment sources include returning tutors, students recommended by faculty, and students transferring from other institutions. For the last group, a department chairperson evaluates the student's ability to tutor in a specific subject. Other potential tutors must have completed the course for which they plan to tutor with an A or B.

Potential tutors are interviewed and screened by the program director. Selection criteria include communication and interpersonal skills, verbal and listening abilities, flexibility, resourcefulness, patience, and firmness. During the interview, tutorial responsibilities and program expectations are discussed.

All first-time tutors are required to enroll in a credit-granting, semester-long training seminar that covers all program procedures and forms, diagnostic and assessment techniques, varying tutorial approaches, study skills, exam preparation, and evaluation procedures. Specially developed video- and audiotapes and four instructional modules form the core training materials. The tutors are trained to integrate microcomputer and COIL resource materials into their regular tutorial approaches and are expected to prepare sample instructional materials to use with their tutees.

Students seeking assistance either refer themselves to the center or are referred by a faculty member. They are matched at the center with a tutor on the basis of the course and available time. When no tutor is available, the program director attempts to recruit one; if unable to find one, the director tries to make special arrangements with a faculty member or a paraprofessional to assist the student. The tutee's name is given to the tutor, who initiates a contact for an initial meeting. The length of the tutoring relationship is not prescribed; however, a semester-long period is encouraged. One hour of tutoring per week is common for general academic students. Vocational students may receive 2 hours per subject. All tutees sign a contract (not legally binding) that details their responsibilities and stipulates that they will complete an evaluation form upon withdrawing from the program.

Tutors are paid, receive academic credit, or volunteer, and they are expected to spend outside time in preparation for each session. Sessions themselves typically last for an hour. When tutees need more intensive assistance, appropriate referrals are made with the help of the program's director. The rare problems that arise between tutor and student are handled by the program's director.

Each tutor is encouraged to contact a student's instructor for information about specific learning difficulties and instructional approaches. The actual tutoring sessions closely follow the student's daily classroom work and instructional materials. At the end of each tutoring session, the

tutor writes a brief summary of accomplishments and objectives. These records, along with attendance logs and evaluations, track individual students' progress and document overall program performance.

Program Evaluation and Improvement

Extensive program records are kept. Because most information is computerized, updating and tracking are relatively easy. In addition to required paperwork for the funding bodies, evaluations are conducted of the program, the tutors, and the (ABCT) component of the program. Tutors are evaluated by program staff and by each student they help, and tutees are assessed by their tutors throughout the semester. The program itself is examined in terms of staff, the tutorial experience, materials, supplemental learning services, and needed changes. The computer component is examined—its hardware, software, staff, and influence on a student's overall course work.

The program staff perceive their program to be strong and successful. The following elements have been identified as accounting for the success:

- A stringent tutor selection process
- Intensive tutor inservice training
- The COIL resource center with its supplementary learning and instructional resources for both tutors and tutees
- Friendly, helpful staff who are attuned to tutees' needs
- A director sensitive to students' cultural and ethnic differences
- A director with faculty status
- Faculty recognition of the tutoring program
- The program's physical facilities—tutoring space, the COIL resource center, and the ABCT—all housed in close proximity, thus encouraging tutors to use them in their tutoring sessions
- The program's physical location near the college's learning laboratory and diagnostic center, thus facilitating collaboration and coordination of all programs

A variety of positive outcomes for participants further demonstrate the success of the program:

- Tutors have gained self-respect.
- Tutees have benefited from increased confidence and better grades.
- Tutees have gotten jobs because of the computer skills they learned in the ABCT component.
- Tutees have improved their current job performance.
- Tutors have been accepted into 4-year colleges.

Several program changes are anticipated in the near future, including the following:

- Upgrading the rigor of the yearly evaluations
- Expanding resources to permit more drop-in tutoring
- Promoting more coordination with vocational faculty through use of a tutorial referral form
- Adding computer software for study skills inventory, and textbooks readability analysis
- Adding special, occupational, employment-related, and English-as-a-second-language software

Waukesha County Technical Institute

Pewaukee, Wisconsin

Waukesha Technical Institute, a 2-year postsecondary school, has over 30,000 students. A majority are older or returning adult students, about 10,500 are enrolled in vocational-technical certificate and degree programs, and 18,600 are in occupational skill upgrading programs. Housed in the Educational Resource Center, the peer tutoring program is one of several learning support services offered to students through a program known as The Learning Place. The overall goal of The Learning Place is to provide all students and the general public with a place to review, relearn, or improve basic academic skills and to strengthen student performance in college course work. Accordingly, the following services have been developed:

- Peer tutoring
- Diagnostic testing
- Instruction in reading, writing, and mathematics
- Textbook readability analysis
- Assistance in completing high school diplomas
- Special instruction and assistance for students with handicaps or learning disabilities

Peer tutors are neither expected nor trained to diagnose student learning problems, conduct in-depth English-as-a-second-language (ESL) tutoring, or provide supplemental support for the learning disabled or handicapped students. The tutor is, however, exposed to the full range of Learning Place services and is trained to know when and how to make appropriate referrals when tutees need such help. The close physical proximity of all program components at The Learning Place means a high degree of coordination and collaboration among staff.

Program Development and Administration

The peer tutoring program at Waukesha Technical Institute has been evolving for about 5 years. The school's Learning Place staff realized that returning and older adult students often needed supplementary support to complete their college work successfully. Consequently, the program was designed to strengthen students' study habits, promote their independence as adult learners, and provide time for individualized assistance that was not possible in the classroom setting.

A strong emphasis is placed on gearing the program to learner independence and adhering to the idea of temporary supplemental tutorial support. Students who need assistance are encouraged to seek tutoring, and the expectation is that tutees will be responsible for their own progress and learning.

The peer tutoring program is designed to be flexible, informal, and uncomplicated. The tutoring role itself is very content-specific. The staff's attitude is that the college has hired competent instructional and counseling staff, and, consequently, tutors are not to assume roles of counselors or instructors. Rather, tutors are the ones who can break course material down to the level of the

tutee's understanding and overcome the impersonal distance that frequently arises between student and instructor in a large classroom setting.

The peer tutoring program employs approximately 40 paid tutors and is coordinated by a full-time instructor, who reports to the academic support manager of the college's Division of Student Instructional Development. The instructor interviews and hires the tutors, oversees the program's necessary paperwork and budget, conducts inservice training for the tutors, provides overall guidance and establishes policies for the tutoring program, maintains liaison relationships with college faculty, and works cooperatively with other Learning Place staff to develop an integrated array of special services for students.

The tutoring sessions are held at The Learning Place, a large, open, well-lit space in a modern structure that also houses the library. Most tutoring occurs at tables and chairs in the open space; however, a number of small, individualized carrels exist for tutoring that calls for quieter conversation or extended concentration. To accommodate the many students who also work, The Learning Place is open 12 hours a day during the week.

Because the tutoring area is located near the library and the computer-assisted instructional area, additional instructional resources beyond classroom materials are easily accessible and there is easy physical access to other Learning Place staff and services.

Program Functions and Operation

The effort to recruit tutors begins in the fall semester. Memos are sent to all instructional staff asking them to recommend and refer qualified students and indicating the availability of tutorial services. In addition, advertisements for tutors are distributed around the campus.

Potential tutors are given a very brief initial interview when they receive their application materials to explain the general program, responsibilities, and expectations. Basic qualifications for tutors include current enrollment, successful completion with an A or B in the course for which they wish to tutor, and a recommendation from a faculty member.

The program coordinator personally contacts the faculty references for specific information about the tutors' interpersonal communication and helping skills. Then the potential tutors are interviewed in depth by the coordinator. Emphasis is placed on the potential tutors' overall attitudes, ideas about their education's value, and personal goals. The coordinator takes notice of whether the students have reviewed and are prepared to discuss tutorial strategies, learning techniques, and other technical information that was included with the application materials. Final hiring decisions are based on the interview, the faculty recommendation, and students' demonstration of responsibility and commitment. Tutors are paid and are considered to be college employees.

Tutors are given one formal, paid, inservice training session each semester to review program procedures, required paperwork, and evaluation practices. Additionally, attention is given to the actual tutoring process and to specific tutorial techniques. Handouts and reading materials are provided on topics such as student learning styles, tips for subject-specific tutoring, a tutor job description, guidelines for providing positive reinforcement, and ways of asking questions to trigger a tutee's thinking. Although attendance at this inservice training session is not mandated for experienced tutors, it is encouraged for new tutors.

Because tutors have already taken the courses for which they tutor, minimal outside preparation is required. They are expected to have reviewed the material and to be responsive to each tutee's needs. Tutors are also urged to contact a tutee's instructor for additional handouts or study guides.

In addition to the inservice, each tutor meets privately with the program coordinator twice during the semester. The coordinator conducts an informal evaluation, discusses the tutee's progress, and explores solutions to problems that may have arisen. Throughout the semester, the program coordinator informally monitors the tutoring process and is available to provide ongoing advice or assistance.

The students who seek assistance either come in on their own or are referred by an instructor. Tutor and tutee matches are made on the basis of subject matter and schedules. When tutees come to The Learning Place, they are given a list of subjects available for tutoring and a tutor's name and telephone number. A tutee then initiates a contact with the tutor at home, and together they establish a schedule for the tutoring and make arrangements to meet at The Learning Place. Program staff feel that having the tutees initiate the contact forces them to take some responsibility for their own learning. If the initial match is not successful in terms of schedules, the student is given the name of another tutor. Only when a tutor or tutee requests a change does the staff intervene. If serious problems do arise with a tutor, program staff simply stop referring tutees to that individual.

Most tutoring sessions are one-on-one, although, for introductory courses, a tutor may work with two or three students together. A student can have more than one tutor; for example, a tutor may be needed in a general education course and in a vocational content area. Although the tutoring sessions themselves last only for 1 hour, there is no fixed number of sessions that a tutee can or must receive. Tutees may withdraw from tutoring when personal objectives are met.

When tutees enter the program, the program coordinator talks informally with them to get an idea of the basic problems. Then, after the first tutoring session, the coordinator meets with the tutor to review problems and discuss an approach. Often, by this time the tutor has also spoken with a tutee's instructor about learning needs. The coordinator uses all this information to decide whether the tutee needs additional assistance from other services offered at The Learning Place.

Program Evaluation and Improvement

The college's peer tutoring program staff try to limit paperwork and formal evaluations to that required by funding agencies and needed for program monitoring. Included are a standard employment application for the college, a nonbinding agreement between the tutor and program staff that delineates responsibilities for each party, a tutee attendance form, and a tutor log.

The required tutee and tutor forms together are useful for cross checking tutors' hours for payroll records, obtaining reimbursement from funding bodies, and charting tutee progress. The tutor log is perhaps the most important instrument for charting tutee progress; it must be filled out for every session and provides specific information on the instructional objectives, materials, and tutorial strategies used.

Tutors receive formal evaluations each semester from the coordinator, who asks each tutor to fill out a self-evaluation form and each tutee to respond to an evaluative questionnaire about the tutor. Using the two responses, the coordinator holds discussions with individual tutors to examine

strengths, weaknesses, and recommended changes. More important, however, is the coordinator's ability to observe casually (and critically) the day-to-day tutoring activities. This built-in evaluation mechanism allows problems to be caught early and resolved quickly.

The fact that the majority of the students are adults also provides an internal monitoring mechanism. Most of the students hold outside jobs and need to maximize their study time. Consequently, the tutees tend to be extremely demanding and vocal about the quality of the tutoring service they receive.

There are several factors that are crucial to the success of the peer tutoring program at Waukesha:

- **Strong faculty support**—In tutor recruitment, tutee selection, and the development of special learning resource materials, faculty are approached in a positive manner that neither threatens nor alienates them.

- **A talented, flexible coordinator**—The coordinator has formed good relationships with faculty, promoted the program among college administrators, and provided positive leadership for the tutors and tutees.

- **Carefully screened, dependable, hardworking tutors**—Tutors have been chosen who have superior skills. Continuing faculty support frequently has been sustained on the basis of well-chosen tutors.

- **Clear expectations for the tutors**—Clear expectations have been translated into effective screening criteria, which in turn have influenced tutor recruitment.

- **Few restrictions for adult students**—Program credibility among students has been important for program survival. The program has been designed to meet the unique needs and schedules of adult students who also hold jobs.

Other factors that contribute to the success of a program such as Waukesha's include the proximity to and integration with other services such as those offered at The Learning Place, a strong public relations effort, the atmosphere of the facility where the actual tutoring takes place, the space and layout of the tutoring area, and the accessibility of the facility to the student population.

Waukesha's program has achieved successes. The program's services are heavily utilized and contribute to student retention, and, program completions. Tutors and tutees alike have reported increased confidence and self-esteem. Instructors have indicated a greater awareness of students with special needs and a security in knowing that they can help these students achieve if they work together with tutors and program staff at The Learning Place. Faculty, student tutors, and tutees have suggested that they have overcome social and attitudinal barriers toward others of different ages, sexes, or races as a result of the peer tutoring program.

For the immediate future, the peer tutoring program at Waukesha faces little change. There are plans for a greater public relations effort among faculty, students, and administration and for further building of cooperation and coordination among Learning Place staff.

Gateway Technical Institute

Racine, Wisconsin*

The peer tutoring program at Gateway Technical Institute is one of several developmental learning resource services for students at the institute's GOAL Tutoring Center. These free services, including content tutoring in various courses, study skills assistance, reading and math placement tests, and make-up tests for some classes, are used by approximately 1,500 students a year. Noncredit developmental courses to help students build or refresh their basic skills are also available for a small fee in four areas—reading, mathematics, communications, and spelling and vocabulary building.

Returning adults comprise a majority of the student population. Consequently, the peer tutoring program is directed toward this population. The program is staffed by professional teachers and nonprofessional tutors under the coordinator of the GOAL center. The professional teacher and GOAL Center coordinator together are responsible for integrating the peer tutoring program with other GOAL center services and for tailoring it to the needs of Gateway's adult student population.

Program Development and Administration

The peer tutoring program provides remedial as well as enrichment tutorial assistance. Many of the college's returning adult students have adequate academic skills but lack the confidence in their own skills or the experience that shows them that they can perform adequately. For these students, the tutoring program is a source of support and guidance, especially during the first semester, when college work appears to be overwhelming.

The program has been designed to provide short- and long-term tutorial assistance. Long-term objectives include improving students' overall performance and study habits, increasing student retention, and strengthening students' self-concept and academic independence. Shorter term objectives include helping students with immediate homework assignments, special class projects, and test preparation.

Tutorial services are offered on a drop-in basis. Schedules show when tutoring for specific subjects is available. However, individual matching between one tutor and one tutee is not common. The professional teacher coordinates the schedule and maintains as much of a balance as possible between demand for and the supply of available tutors. Special scheduling arrangements can be made for students who request tutoring in uncommon classes or who are not available during the center's scheduled hours.

A primary objective of the program is to maintain and reinforce the idea of the student as an independent, adult learner. Therefore, most of the responsibility for seeking and getting assistance falls on the tutee. Program staff perceive that many of the adult students, especially those who are retraining for new occupations, need to stretch themselves and gain experience interacting with people who are different from themselves; the drop-in, nonmatching approach forces tutees to do this. Program staff also feel that an unmatched situation, in which the tutee must relate to different tutors over time, is less likely to foster dependency.

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*Gateway Institute has three separate campuses—Racine, Elkhorn and Kenosha, Wisconsin. This site visit reflects the peer tutoring program at the Racine campus. The program is very similar to those at the other two campuses.

The tutoring sessions occur in an open classroom setting located in the GOAL center. There are some developmental study aid resources available for the tutees (e.g., programmed instruction material for math, English, and communication skills). Tutors are familiar with these resources and utilize them when appropriate, and they also are aware of various services available through the GOAL center and make referrals when necessary.

The program is funded from college and district operating money and Federal funds. Tutors are paid the minimum hourly wage.

Program Functions and Operation

Tutors for Gateway's peer tutoring program are usually recruited by faculty members, word-of-mouth advertising, or through the college's work-study program. Others are returning tutors or former tutees. The professional teacher and the GOAL Center coordinator usually interview all new, potential tutors, focusing on motivations for tutoring, personal expectations, eventual goals, attitudes, ability to work with educationally disadvantaged students, and the specific subjects for which they want to tutor. In addition, the professional or the GOAL Center coordinator checks with faculty members regarding the students' communication skills, knowledge of subject matter, and patterns of interacting with other students. Tutors must have a minimum overall grade point average of 2.2 and preferably (but not necessarily) have completed the course for which they are tutoring. Although important, the grade point average matters less than communication and interpersonal skills.

Students can tutor in as many subject areas as they are qualified in and for the number of hours they wish as long as their own work does not suffer. Some limitations arise because of budget constraints, the number of tutors needed for a specific subject area, and (for work-study tutors) the number of hours they are permitted to work.

The professional teacher who supervises the program does not hold a preservice orientation session for the tutors, but the tutors receive a handbook that offers general tutoring tips and suggestions for the intital tutoring session. Two or three weeks into the semester, the professional teacher holds a combined orientation and inservice training session. By this time, tutors have had the opportunity to meet with tutees and experience some of the difficulties that may arise in a tutoring situation. It has been found that the tutors make better use of the information about tutoring do's and don'ts, tutoring techniques, professionalism, and problem areas in tutor-tutee relationships after they have had this experience. Beyond the initial training session, the professional teacher provides individualized guidance to the tutors, and tutors assist each other informally with suggestions and new ideas.

Tutors typically are not required to interact with the tutee's instructor. From discussions with the tutee, the tutor must determine the instructor's overall approach and follow that as closely as possible. At times, faculty members who are supportive of the tutoring center concept visit the center to acquaint themselves with tutors and to provide extra materials or handouts. If a tutor does assist a tutee in a lab setting or in a hands-on, equipment-related situation, interaction and coordination with the instructor is necessary.

Most tutees come to the tutoring center through faculty referral. Others are referred by other students or counselors or show up voluntarily. Some instructors invite the teacher supervising the program into their classes or bring the whole class to the tutoring center at the first of the semester to inform students about the availability of tutoring services and other services at the GOAL Center.

Although tutees are responsible for seeking their own help, the type of tutorial assistance they receive is a responsibility shared with the tutor. Tutors are not trained to diagnose student problems. However, they are able to distinguish between students needing tutorial help and those needing more in-depth educational development assistance. Those needing more help are referred to other service components within the GOAL center or to the college's Adult Basic Education Program.

The length of the actual tutoring session is 1 hour, and tutors are not required to spend time outside the tutoring session preparing special materials for the tutees. Students may visit the center periodically for assistance with homework, special projects, or tests. However, regular use of the tutorial service which improves class performance and study habits, is encouraged for all tutees. Although most tutoring occurs on a one-to-one basis, tutees do have the option of forming study groups with a tutor if they feel this will be helpful.

The center teacher supervising the program is responsible for ensuring an adequate supply of tutors to meet tutee requests and must use anticipatory planning and information from previous years' experience. The individual must be aware of new programs on campus. When student tutors cannot be found, a course instructor with a light teaching load or a lab technician may be asked to tutor. The professional teacher must also be able to anticipate the flow of tutees through the center during the semester. Larger numbers of students seek help just before the midterm and final exams; therefore budget levels and numbers of tutors have to be paced accordingly.

Program Evaluation and Improvement

Aside from required paperwork for funding bodies (e.g., attendance and payroll records), no structured, formal evaluation is conducted of the peer tutoring program. However, the center teacher does observe the tutors and the tutees regularly and considers their comments regarding the program's performance and direction. The professional teacher supervising the tutoring program is also evaluated annually by the GOAL Center's coordinator. This evidence suggests that the program has grown, gained respect, and benefits all participants.

Tutors gain valuable, paid work experience, and the program provides them with a letter of recommendation for their personnel files. Additionally, many tutors suggest that their patience, interpersonal skills, and academic performance have improved as a result of tutoring. Other benefits include extended friendships and greater self-esteem.

Tutees improve their grades, are encouraged to stay in school, receive support from tutees with whom they share problems, and increase their number of friends and social experiences.

The program itself has gained acceptance since its beginning. Initially, some instructors felt threatened by the program or did not recognize its benefits, however, the professionalism and responsibility shown by the coordinator and tutors have alleviated the concerns.

The greatest difficulty facing the program is being flexible enough to provide tutorial services when students are available. The adult students at the Institute often work during the day and have household responsibilities in the evenings. Consequently, students availability for tutoring is limited and irregular and it is difficult to adapt tutoring hours to their schedules. For the immediate future, the Institute is planning to ease the scheduling problem by offering 30-hour study skills classes for students. This effort will be complementary to the peer tutoring program.

The effectiveness of the program has been built over several years. Among the factors that have made the program effective are the commitment of the staff, their awareness of adult students' needs, and the program's professional teacher, and the GOAL Center coordinator who are capable of coordinating and interacting with both instructors and the college administration.

Mesa Community College

Mesa, Arizona

The peer tutoring program at Mesa Community College is one of a variety of student support services offered through the college's Learning Center. Because of the association with the center, the tutoring program has access to and receives benefit from the center's diagnostic services, basic skills training that is individualized and computer-based, and programs for improving study skills and reading and writing. Similarly, the center's other programs have access to peer tutors. The peer tutoring program offers students help with content-specific instructional support skills and strengthens their motivation.

The program offers tutorial assistance for both specialized technical or occupational skill training and general education courses. Strong coordination is maintained with the college faculty. Also, the staff members have formed links with many of the college's operational departments and are involved in community outreach efforts to special population groups and potential students. From these efforts, the program has gained strong administrative support and college-wide credibility.

Program Development and Administration

Mesa's peer tutoring program began as a small, independent tutorial service designed primarily for veterans in need of assistance in developing basic skills and completing high school equivalencies. At the outset of its affiliation with the Learning Center, the program was a drop-in service open daily from 8:00 a.m. to 7:00 p.m. Appointments for tutoring were made by telephone, and little effort was made to interest students in using the program to improve their overall academic performance. Typically, help was sought for a particular homework assignment or for last minute exam preparation. Most tutorial material used during the early period consisted of answer keys provided by faculty members. The result was that students had answers to homework assignments but failed exams. Consequently, the faculty questioned the value of the program.

Program modifications have reversed most of these earlier practices and greatly strengthened program performance. The tutoring program now is open daily from 10:00 a.m. to 8:00 p.m., and all appointments must be scheduled personally and in advance with the program's receptionist. The tutoring staff discusses tutoring needs and concerns with faculty members; a way is then found to address these needs, particularly in instances requiring in-class tutoring. The tutorial approach and resources utilized are no longer oriented toward giving students quick and easy answers.

The tutoring program is being relocated to a large facility in a separate wing of the library, making the tutoring program more visible and accessible to students. However, the staff members feel that the relocation may have a positive impact on students' willingness to acknowledge a need for help.

The program's current philosophy is definitely to create independent learners and provide students with tools to succeed academically. The tutoring component of the Learning Center is staffed with a full-time coordinator and a student receptionist in shifts. The coordinator is part of, and actively involved with, the Learning Center staff. The primary tutoring materials are the tutees' books and class handouts, and the budget and resources for running the tutorial center are included in the Learning Center's overall budget.

Program Functions and Operation

Tutors are recruited from across the campus through the use of brochures, word-of-mouth, instructor referrals, and other publicity campaigns that Learning Center staff conduct. Potential tutors must fill out an application and be interviewed by the program coordinator. They must have earned at least a B in the course for which they wish to tutor and have good interpersonal and communication skills. Faculty recommendations and approval are required for all tutors.

Tutors are provided with an initial orientation and ongoing training and feedback during the semester(s) they tutor. The type of orientation and the frequency with which regular assistance is offered depend upon their needs. The orientation covers program expectations and procedures, basic tutoring strategies, and information about how to diagnose tutee needs and conduct tutoring sessions. Typically, during a tutor's first semester of tutoring, regular feedback is provided by the coordinator once every 3 weeks. Subsequent feedback and individualized inservice assistance is provided on an as-needed basis.

Tutees usually come for help either on their own initiative or at a faculty member's suggestion. When they refer students, faculty members are asked to make recommendations about students' needs. Tutors make basic decisions about learning needs of students who have referred themselves and whether other Learning Center services are necessary. Additionally, the program coordinator interviews tutees to obtain diagnostic information. When other Learning Center components are used, a complete diagnosis is made of the student's difficulties, and appropriate remedial efforts to be used along with tutoring are prescribed.

Tutoring sessions typically last 1 hour, and each tutee may receive 2 hours of free tutoring per subject per week. Tutors are guaranteed at least 3 hours of tutoring per week and are paid an hourly wage. Matching, when it does occur, is usually on the basis of tutor and tutee schedules. Also, tutees may request a specific tutor. Although most tutoring is one-to-one, small group tutoring is possible. Tutors and tutees share the tutoring responsibility. The tutee is an active participant in deciding the direction of the tutoring session and the skills that are to be strengthened. The tutee is to come to the sessions prepared to work, and cancellations without notice on either side are grounds for dismissal from the program.

Tutors often continue to tutor for more than one semester and tutees often become tutors. Tutees can seek assistance for as long as necessary and as long as a tutor is available. Recently, Learning Center staff reviewed the tutoring program and made a decision not to offer tutoring for the highest level courses. Consequently, more resources are available for the entry- and mid-level courses, for which there was a greater demand for tutoring. Students from higher level courses who desire special assistance typically make special arrangements through the instructor.

Program Evaluation and Improvement

The peer tutoring program at Mesa is a student-driven program. The staff regularly conducts formal and informal evaluations; formal research has been conducted using program statistics, and an annual program review has been completed.

Every 3 weeks, an evaluation including staff observations and tutee reviews is delivered to the tutors in the form of individualized feedback or informal training for improved methods.

The program itself is evaluated at least once each year by the faculty, the college administration, and counselors. Their ratings and comments are used both to evaluate the program and to make program changes.

The program staff monitors program performance in order to make changes and document successes for the purpose of obtaining administrative support, applying for special grants, and justifying periodic expansion plans. The monitoring results are also used to conduct particular research projects (e.g., determining the factors that influence tutor and tutee success).

In addition to the more structured evaluation and monitoring efforts, the staff also has established an informal information network established with the faculty that provides ongoing feedback on program performance and college-wide visibility and credibility for the program. Such efforts have resulted in invitations to apply for special project funding through a specific college department and in the college president's crediting the program with at least part of the school's recently increased retention rate i.e., 36 percent higher.

On the basis of their experience, the peer tutoring staff suggest attention to efforts such as the following for a successful program:

- Begin a new program as a small effort and build gradually. Demonstrate success, and then build and expand upon it.
- Never forget to involve the faculty, and realize that their participation will have to be developed in stages.
- Do not ignore the needs of students who are disabled or have developmental problems. These are the students whose problems the faculty have the most difficult time handling. The tutoring center is a logical and positive location for aiding such students.
- Never ignore staff people such as bookstore managers, bookstore and mailroom clerks, switchboard operators, and staff secretaries. They are also referral agents and can make a crucial difference in the program's success.
- Do not ask for too much from the administration or faculty at first, or expect immediate, acceptance. Acceptance and credibility will come with experience.
- Consciously build links with and become advocates for student and community groups (e.g., returning women, and displaced workers). Such efforts will make the program more responsive to students' needs and will lead to greater campus-wide acceptance and credibility.
- Publicize the program by creating and distributing brochures, speaking at student orientation programs, appearing at faculty meetings, and so forth.

The program is establishing goals and directions for the future. Foremost among the efforts is adjusting to the new, expanded program size and location. Also, program staff are attempting to integrate tutoring more closely with other instructional technology. Microcomputer technology is already being used in several Learning Center components. If instructors develop tutoring software for their courses, perhaps tutoring assistance can be extended to the higher level courses.

El Camino Community College

Torrence, California

El Camino Community College offers a variety of tutorial services. The peer tutoring program's Learning Resource Center offers the most general and comprehensive array of tutoring. Specialized tutoring is also available through the college's specific academic departments, the English-as-a-second-language (ESL) and vocational-English-as-a-second-language (VESL) programs, the writing and reading labs, several student service organizations, and the Extended Opportunities and Program Services (EOPS) program for disadvantaged students. At present, there is no strong coordination between the ESL and VESL tutoring center and the peer tutoring program. However, referrals and supplementary instructional resources are available to peer tutoring clients. Each tutorial service typically has its own tutor selection criteria and pay scale for tutors. However, the goal of improving student academic performance and strengthening overall learning skills unifies all the services.

Program Development and Administration

The peer tutoring program goals are to provide individualized academic help, help students succeed in their college courses, reduce dropouts and improve retention, help students develop self-direction and confidence, and foster a sense of campus community among students. The tutor and tutee meet to work on specific learning problems and also general educational problems that the tutee has.

The librarian is in charge of the tutoring facility, and the program itself is directed by a program coordinator. Most tutoring sessions, in all but laboratory courses, occur at the Learning Resource Center, located in the library basement in a large, open space shared with the computer assistance center. Other instructional equipment and resources are easily accessible and strategically located nearby. The computer assistance center contains learning development software and courseware developed by the college faculty. Tutors are trained to integrate these various resources into their regular tutoring strategies.

Basic tutoring materials typically consist of a course syllabus and the required text. Often, as a result of tutor-faculty meetings, additional handouts and old tests are available for use with tutees. The program's facilities are used by approximately 1,100 students per semester; 300 are offered one-on-one, scheduled tutoring, and 800 receive drop-in assistance.

Program Functions and Operation

Tutors for the program are recruited from faculty recommendations, word-of-mouth campus publicity and brochures, and the ranks of former tutees. Tutor selection criteria include completion with an A or B in the course for which tutoring is to be provided, a certificate of recommendation signed by the course instructor, grade slips proving course completion, and an ability to relate well with other students. Beyond these criteria, final selection is based upon the number of tutoring requests in specific subject areas, the tutor's commitment to the program's purpose, prior tutoring experience, and the ability to relate to students from diverse ethnic backgrounds. Returning tutors who have served successfully are given priority. The decision to hire a tutor is based on an interview with the tutoring program coordinator and a review of the required faculty recommendations.

Once selected, a tutor is designated as either a tutor intern with no experience or a qualified peer tutor. The two categories carry separate responsibilities and pay rates. To become a fully qualified tutor and be eligible for a higher salary, the intern must do the following:

- Work successfully as an intern tutoring no fewer than three tutees for a period of one semester
- Work successfully as an intern for at least a total of 100 hours
- Miss no more than one tutorial meeting during a semester
- Complete all required inservice training and have the training validated by the tutoring program director

Training for tutors begins with an in-depth orientation to the program, its goals, required paperwork, and tutoring center procedures. An overview of the college's learning center resources and student services is provided so that tutors can make effective referrals to tutees needing additional help. Tutors are provided with a handbook that serves as a reinforcement to the orientation discussions, offers general tutoring tips and techniques, and helpful strategies, and describes common pitfalls. Beyond the orientation, periodic inservice training is offered in learning styles, varieties of effective tutoring strategies, and general improvement of learning and study skills. To enhance the inservice training, the college's learning resource and media center have developed individualized video-and audiotapes for the tutors. In addition, the program director observes and regularly monitors tutor performance. When tutors' skills need to be strengthened, individualized help is given.

Tutees come to the center both on a self-referral basis and at the recommendation of a faculty member. Although most tutees need to strengthen academic performance in a specific subject area, occasionally help is also needed with general reading and writing skills. Additionally, some tutees simply lack self-confidence in approaching a particular subject.

Students who request tutorial assistance must fill out a tutee application form and have the instructor complete an instructor recommendation form. The tutee form asks for demographic data to assist in determining eligibility* and in assigning and scheduling tutors and tutees.

Except for special cases, tutees may receive 3 free hours of tutoring per week. Students who need tutoring in more than one subject area must decide how to distribute the allocated tutoring time. The responsibility for contacting tutors and arranging appointments rests with the tutees, who must make requests within a reasonable amount of time or their applications will be placed in the inactive file.

Tutoring sessions typically last about 45 minutes. The tutors are not trained to diagnose a tutee's learning level; however, tutors may take advantage of the college's diagnostic services to help them determine a tutee's skill level and learning style. Additionally, the tutees themselves fill out a self-assessment study questionnaire, which helps tutors choose and plan appropriate tutoring strategies.

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*Tutees can be placed in one of four classifications: Educational Opportunities Program (EOPS), Vocational Education Act (VEA), veterans (VET) or other.

Tutors are encouraged to confer with the tutee's instructor periodically throughout the semester. Tutors are to ask for course outlines, a list of the textbooks being used, and assignment schedules. The time tutors spend with a tutee's instructor can be counted as preparation time, for which they receive payment. This time is considered as tutoring time for the tutee.

Tutors are not guaranteed a specific number of tutoring hours weekly, and no tutor may work more than 20 hours per week. If personality problems or disagreements arise between tutors and tutees, there is a formal complaint procedure that the tutor or tutee can follow. Also, the coordinator is available to handle disagreements. Typically, problems demanding a termination of tutorial assistance stem from missing appointments, being consistently late, or not completing required paperwork properly. Tutors are subject to termination when they fail to meet their obligations and responsibilities or otherwise show a lack of commitment to the program.

Program Evaluation and Improvement

Tutors are required to make out a schedule of tutoring availability for the program director. The schedule is to be checked regularly and adjusted to meet tutee needs. Also, tutors are required to submit a time card signed by a staff member after each tutoring session. Future tutoring dates are to be filed in a tutoring appointment file box; this serves to protect a tutor if the tutee fails to come to an assignment. Together, these records are used to provide documentation for funding bodies. Other paperwork related to program monitoring efforts includes tutor and tutee application forms, instructor recommendation forms for both tutors and tutees, and tutor and tutee complaint forms that are used for documenting and resolving problems. In addition to paperwork, the program director's daily presence at the center serves an informal monitoring function.

The tutors provide regular feedback on program satisfaction, performance, and needed changes during regularly scheduled tutor meetings and the inservice training. They also regularly respond to a tutorial survey that examines individual aspects of the program, faculty participation, and tutor-tutee interaction. Feedback from faculty regarding program performance and needed changes is collected informally and frequently by the program's coordinator. The information and recommendations resulting from these evaluative sources are used as a basis for revisions.

For the immediate future, the tutoring assistance provided at El Camino will probably continue to be offered not only through the Learning Resource Center but also through various college departments and service clubs, the EOPS program, and the VESL center. Space constraints, categorical funding and legislation, and the special needs of various student groups support the continuation of the current arrangement. However, there is a desire to coordinate and centralize the various tutoring services. The information and referral services that guide students to the appropriate tutorial programs are likely to be strengthened.

Bilingual Vocational Training Program: Automotive Quick Start Mechanic

Maricopa Tech, Phoenix, Arizona

The Bilingual Vocational Training Program at Maricopa Community College provides occupational training to Hispanic adults in two occupational training areas—quick service auto mechanics and home health aide.* All students must be over 18, meet specialized residency requirements, and be Spanish speaking with limited English skills. Training is offered in vocational English as a second language (VESL), occupational skills, and job search and interviewing skills. A bilingual tutor works with the VESL and occupational skills instructors to give students both individualized and small-group instructional assistance and motivational support.

Program Development and Administration

The Bilingual Vocational Training Program is one of several responses to a needs assessment conducted for limited English-proficient (LEP) adults in Arizona and funded by the Arizona Department of Education. The assessment was based on an analysis of labor market information, a linguistic study of LEP individuals, and a survey of available resources in secondary and postsecondary training institutions.

The needs assessment revealed that 37 percent of Arizona's non-English-speaking adults were 22-44 years old and that for many of these people, the lack of English skills has created barriers to both education and employment. It also indicated that job training programs for LEP populations in Arizona (and the Nation) were limited because available English-as-a-second-language (ESL) programs concentrate on skills necessary for long-term academic success and largely ignore the VESL skills needed to understand classroom instruction and on-the-job training.

As a result, an occupational training model integrating language and skill training was developed. As a basis for developing the program's content, the staff conducting the needs assessment examined the following information:

- Problem training areas for current LEP students
- Current and future demand areas of employment
- Availability of training and educational programs
- Difficulty level of training and coursework of selected occupational programs
- Applicability of popular training and career areas to the LEP population

From an analysis and synthesis of this information, two occupational training areas—quick service auto mechanic and home health aide—were selected and the program design established.

The program has just finished its first year. During its second and third years, depending on labor market demand and training resource availability, other occupational areas will be offered. Funding bodies include the Federal Department of Education, Maricopa Community College, and the Arizona State Department of Economic Security.

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*Only one component, auto mechanics, was examined for this site visit.

In planning the program, one of the main tasks was developing appropriate instructional materials. Program staff worked with area employers to identify necessary skills and workplace tasks, develop lists of appropriate vocabulary, and conduct job task analyses. The results of these efforts were translated into instructional materials and guides for both the VESL and the vocational skills instructor. In turn, the instructors modified the materials to reflect the needs of the adult students in the course.

The program is staffed by a full-time coordinator, a clerical staff person, a skills instructor, a VESL instructor, and a tutorial aide. A placement specialist is also on loan to the program from the State's Employment Security Department.

Classes are held for 6 hours a day, Monday through Thursday, for 16 weeks. Usually the VESL classes are held first, followed by a tutorial session and then skills instruction. Students also meet frequently with the placement specialist to discuss and plan career goals, develop job search skills, and prepare for employer interviews. Additionally, there is time allotted for individualized, computer-based instruction to supplement VESL and occupational skills instruction.

Program Functions and Operation

The Bilingual Vocational Training Program was advertised throughout Phoenix's Hispanic community and the social service agencies that work with these individuals. Program staff expected the majority of referrals to come through the Department of Economic Security; however, most of the students become aware of the program from public service spots on the city's Spanish language radio station. All of the students accepted into the program have met National and State residency requirements and have limited English skills. Those who were employed typically held low-paying jobs that offered little hope of advancement.

The program's tutor had at one time been a limited English-proficient student. Currently, he is an education student at Arizona State University. Program staff chose the tutor on the basis of his own LEP experience, his bilingual and bicultural orientation, and his interpersonal communication and instructional abilities. Although the LEP experience and a bilingual and bicultural background were not absolute prerequisites for the tutor's position, the staff wanted the person to be aware of and sensitive to cultural and linguistic differences. The ability to speak some Spanish was deemed important; however, the knowledge of when *not* to use Spanish with the students (i.e., to know when to force them to use English) was given more emphasis.

The tutor meets with the students for 1 hour daily, Monday through Thursday. He is paid and coordinates with both the VESL and the occupational skills instructors. Whenever possible, he attends the classes of both instructors to keep abreast of student progress and to plan the students' work and materials. Additionally, the tutor sometimes serves as a classroom aide. As often as possible, both instructors get together with the tutor to plan and coordinate the curriculum. However, time constraints make this difficult, and typically, the tutor meets with each instructor individually.

The program's tutoring component is flexible. The tutor works individually with students or with small groups of three to six students. Much of the work is a reinforcement and review of the VESL material and conversational practice. When there has been ample planning between the tutor and instructor, new material may be previewed. The tutor utilizes both instructor-prepared materials and materials that he has developed. The tutoring sessions are held in a comfortable room at the training facility furnished informally and equipped with instructional aids. For those

students not directly involved with the tutoring session, there are other areas within the facility where they can study. Also, there is access to microcomputers and software programs that offer individualized assistance with vocabulary, basic learning skills, and content-area skills.

Program Evaluation and Improvement

Because the program is in its initial phases, formal evaluations have not been conducted. Similarly, record-keeping and monitoring systems beyond those required for the program's funding bodies have not been instituted.

At the beginning of the second year, the program will become formally associated with the Maricopa Community College's Learning Assistance Center. Under this arrangement, the program will have more access to intake, assessment, and diagnostic resources. Also, tutors will be paid by the hour rather than given a flat wage, and there will be more solid guidelines for hiring and training them. The time needed for implementing the program precluded extensive inservice tutor training during the first year. Program staff believe that increased inservice training would greatly strengthen the program and its overall success. Integration with the Learning Center will also require a more formalized record-keeping system for the program.

Because of time constraints during the initial implementation, general staff inservice training was limited. During subsequent phases, all staff will receive increased special training in effectively communicating with and instructing LEP students; such training, it is hoped, will enhance team planning.

The three greatest challenges confronting the program are scheduling, integrating the VESL and the content-specific instructional components, and finding staff who are adept at working with the LEP adult student population. Integrating the VESL and content instruction is the most crucial and the hardest to achieve. The greatest obstacle to effective integration has been finding adequate planning time when both the instructors and the tutors are available.

Arizona has many other special language groups of adults who need both English and occupational training before they can be employed productively. Program staff believe that a program similar to theirs can become the basis for meeting these needs. The needs assessment, the labor market and employment analysis, the materials development component, and the design and implementation of the program itself offer an integrated method for providing English and occupational instruction for LEP adults. With minor modifications, the model could also be useful for secondary-level students.

CHAPTER III

RESOURCES AND MATERIALS

This section provides a listing of selected resources and materials available for the vocational educator interested in implementing peer tutoring programs for special learner populations in vocational programs. Program descriptions, program handbooks, and tutor handbooks are presented. Additionally, other references are cited that do not fall precisely into these categories but could be useful to the implementers of a peer tutoring program. Procedures utilized to locate these resources include a systematic computer search, a manual search of appropriate research journals in vocational and educational research fields, and recommendations from members of our panel and practitioners at the site visits.

Resources and materials were selected on the basis of their relevance to a vocational educator and their availability. A number of handbooks, sample worksheets, program forms, and other materials were collected during the preparation of this guide. Many of these items would be helpful to implementers, but they are included here only if they are available for general distribution. The citations are arranged by type of document: program description, program handbook, and tutor handbook. The citations supply the reader with information regarding the title, authors or developers, source, purpose, and annotations of the material or resource.

For some documents, the ERIC reference number is listed. These resources can be purchased in microfiche or paper copy through:

ERIC Document Reproduction Service
3900 Wheeler Ave.
Alexandria, VA 22304-5110

For up-to-date information on pricing and shipping, call the ERIC WATS line: 1-800-227-3742.

Program Descriptions

This group of resources and materials consists of manuals and guides on individual peer tutoring programs and reports on individual or groups of peer tutoring projects. Conclusions are often drawn on key aspects of these programs, and advice and ideas are given on implementing a program.

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Title: **Cooperative Learning: Student Teams**

Author: Robert E. Slavin

Date: 1982

Pages: 32

Source: NEA Professional Library
National Education Association
Washington, DC
Stock Number: 1055-8-00

Purpose: Cooperative learning refers to instructional methods in which students of all levels of performance work together in small groups toward a common goal. The essential feature is that the success of one student helps other students to be successful. This book reports the findings of several studies of cooperative learning. The overall conclusion of the author is that when the classroom is structured to allow students to work cooperatively on learning tasks, students benefit both academically and socially. Benefits of cooperative learning methods are (1) improved student achievement; (2) improved relationships between students of different ethnic backgrounds; (3) accelerated student learning in all subjects and grade levels; (4) improvement in students' social relationships, self-esteem, and fondness for school; and (5) inexpensiveness and ease of use.

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Title: **Guidelines for a Peer Helper Program**

Author: Georgine Materniak

Date: 1980

Pages: 24

Source: University of Pittsburgh
Learning Skills Center
505 Student Union
Pittsburgh, PA 15260

Purpose: These general guidelines consist of the essential issues in creating and directing a peer helper program. Written in outline format, it includes key characteristics of the director, job description, and selection training and recognition of peer helpers. An outline for training the peer helpers is included.

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Title: **Learning and Growing through Tutoring: A Case Study of Youth Tutoring Youth**

Author: Bruce Dollar

Date: 1974

Pages: 130

Source: The National Commission on Resources for Youth
36 West 44th Street
New York, NY 10036

Purpose: In this case study, an in-depth description and analysis of a typical Youth Tutoring Youth program are presented. The author spent a full academic year visiting Youth Tutoring Youth project sites; this is a report on one site.

It describes the program and furnishes details that may be helpful to those developing cross-age tutoring programs. It provides suggestions about conditions that must be met for the project to be successful. The tutoring process with specific pairs of tutors and tutees is explained, as is the role of the supervising teacher. Strong emphasis is placed on the program supervisor's impact on the effectiveness of the tutoring. The need for the tutor to have a personal stake in what happens is also stressed. The key to success is to leave the students alone, respect their ability to find their own approach to tutoring, and trust them to make their own judgments and find their own answers.

Reference: ERIC: ED 118 661

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Title: **"Let the Kids Help One Another: A Model Training and Evaluation System for Utilization of Peer Tutors with Special Needs Students in Vocational Education"**

Author: Susan B. Asselin and Stanley F. Vasa

Date: December 6, 1981

Pages: 30

Source: Paper at the Annual Conference of the American Vocational Association, Atlanta, Georgia, 6 December 1981.

Purpose: This paper identifies several factors that are important to the successful implementation of a peer tutoring program, including administrative support, assessment of tutoring needs, and establishment of program goals and objectives. Equally important is the formulation of a role description of a tutor, which provides the tutor and teacher with a clear description of their responsibilities, the criteria for selecting tutors, an evaluation instrument for measuring the tutor's performance, and guidelines for the appropriate use of tutors in the classroom. In selecting appropriate tutors, teachers should consider a variety of personal characteristics and variables, such as age, achievement levels, and racial and socioeconomic backgrounds. The organization of training components must be based on the individual school's training program. Two activities found effective in training programs for tutors are the Peer Tutor Decision Worksheet and the tutor training triad. Close supervision and quantitative and qualitative evaluations are also essential.

Reference: ERIC: ED 209 481

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Title: **Peer Tutoring: A Model Program**

Developer: Division of Pupil Personnel Services
Indiana Department of Public Instruction

Date: 1977

Pages: 48

Purpose: A model peer tutoring program was designed to operate within the school day and with a minimum of tutor or tutee interruption of the instructor. The focus is on academic tutoring and developing organizational skills. Step-by-step procedures for use by any person interested in setting up a school peer tutoring program are provided.

Included are outlines, goals, objectives, activities, and outcome expectancy for the supervisors, tutors, and tutees. Also included are outlines for tutor training sessions, tutee nomination forms, tutoring session record sheets, a lesson plan form,

a daily progress checklist, student need and student attitude assessment forms, tutee goal forms, an evaluation form, and a parent information/permission form. The book provides procedures, helpful suggestions on methods, examples of programs, and training recommendations.

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Title: **Peer Tutoring Program for the Academically Deficient Student in Higher Education**

Author: Rodney Reed

Date: 1974

Pages: 128

Source: Center for Research and Development in Higher Education
University of California, Berkeley
2150 Shattuck Avenue, 5th floor
Berkeley, CA 94704

Purpose: Peer tutoring programs designed specifically to serve students with educationally deficient backgrounds in postsecondary institutions are rather new and have been implemented in response to the relatively large number of such students who now enter 2-and 4-year colleges and universitites. This document was organized to provide information in the following areas about special peer tutoring programs in postsecondary institutions: their development, goals and objectives, academic areas for tutoring, funding, selection of peer tutors, training programs for peer tutors, compensation of peer tutors, entry and exit criteria for tutees, tutee-tutor ratios, arrangements for the tutoring, and perceptions of program success. Essential ingredients of peer tutoring programs are discussed.

Reference: ERIC: ED 113 981

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Title: **Training and Management of Student-Tutors**

Developer: William A. Deterline
Deterline Associates
1091 Nottingham Way
Palo Alto, CA

Date: December 1970

Pages: 57

Purpose: This report reviews four major projects that are training tutors for cross-age and peer tutoring and outlines a model for training and using tutors in either elementary or secondary schools. The four projects reviewed are (1) Youth Tutoring Youth, New York City; (2) Tutorial Community Project, Santa Monica, California; (3) Cross-age Teaching, Ontario-Montclair School District, Ontario, California; and (4) a Tutorial Program for Kindergarten Reading Instruction, Los Angeles. On the basis of features identified in the review of the four projects, detailed recommendations on procedures for selecting and training tutors, selecting tutees, and scheduling are made. The report also contains a behavior checklist, which identifies methods tutors should use consistently in tutoring sessions.

Reference: ERIC: ED 048 133

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Title: **Tutoring: Some New Ideas**
CSE Report on Tutoring No. 4

Author: Carol Taylor Fitz-Gibbon

Date: November 1977

Pages: 62

Source: Center for the Study of Evaluation
UCLA Graduate School of Education
145 Moore Hall
Los Angeles, CA 90024

Purpose: This report describes three cross-grade tutoring projects, developed with the learning and motivation of the tutor in mind, as a means of strengthening the basic skills of secondary school students through a learning-by-teaching program. The "Learning-Tutoring Cycle" project involves the preparation of curriculum modules by secondary school classes at their own school and then a 2-or 3-week period of tutoring at an elementary school. The Morning as Teacher Semester project involves secondary school students in a semester of an intensive, integrated program built around tutoring, reporting to a specific room in an elementary school for a morning of tutoring, and tutoring support activities. In the "Learning-by-Tutoring Mini-School" project, most of the teaching is done by students, whereas the staff use their skills of diagnosis, prescription, and certification, employing a continuous progress curriculum framework in major academic areas. Ideas that can be added to any tutoring project are offered.

Reference: ERIC: ED 148 806

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Title: **Tutoring with Students**

Author: Ralph J. Melaragno

Date: 1976

Pages: 160

Source: Educational Technology Publications
140 Sylvan Ave.
Englewood Cliffs, NJ 07632

Purpose: This handbook describes how to implement a Tutorial Community Program (TCP) similar to the one used in the Los Angeles Unified School District. Although the emphasis here is on cross-grade tutoring, the basic principles are applicable to peer tutoring within a single classroom. Planning, preparation, implementation, teacher preparation, tutor student training (including a session workshop on tutoring), sample tutoring procedures, program evaluation, and a model for interschool tutoring are covered.

The need for preparation prior to implementation is emphasized. A number of sample forms and letters are included to assist in preparation, implementation, and evaluation.

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Program Handbooks

This group of resources and materials consists of manuals and guides for planning, implementing, and evaluating specific peer tutoring models. It contains material that generally provides detailed guidance on specific programs. Often sample forms, lesson plans, and program outlines are included. Some materials are not specifically geared to vocational education but are included because they can enhance the effective implementation of a peer tutoring program.

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Title: **Developing a Peer Tutoring Program: A Self-Instruction Module**

Author: Richard W. Williams

Date: 1981

Pages: 55

Source: Malcolm X College
1900 West Van Buren St.
Chicago, IL 60612

Purpose: This two-part module was prepared to assist instructors in designing and implementing a peer tutoring program. Part I identifies the learning objectives; provides a pretest; presents an overview of peer tutoring; outlines a systematic tutoring program; and describes five steps in an implementation procedure, including the selection and recruitment of tutors, the identification of instructional resources, the determination of those to be served, and the evaluation and modification of the tutoring program. Part II is a peer tutoring manual. It begins with an introduction to the concepts of peer tutoring and nine learning objectives. The manual suggests 10 learning activities for the tutor that focus on subject matter review, personnel attitude assessment, investigation of the tutor's role, hypothetical tutoring situations, design of learning activities for tutees, identification of additional resources, record keeping, and a personal growth seminar. Appendixes include papers on the role of the tutor and on the community college students, a description of a procedure for a tutoring assignment, discussions and exercises related to tutorial problems and potential solutions, and suggestions for record keeping.

Reference: ERIC: ED 207 632

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SCHOOL 1
SCHOOLROOM 2
SCHOONER 5
SCIENCE 3
SCIENTIFIC 3
SCIENTIST 2
SCISSORS 1
SCOFF 8
SCOLD 1
SCOOP 2
SCOOTER 3
SCOPE 12
SCORCH 8
SCORE 2
SCORN 4
SCORNFUL 6
SCORPION 5
SCOUNDREL 8
SCOUR 10
SCOUT 1
SCOWL 10
SCRAMBLE 3
SCRAP 5
SCRAPBOOK 5
SCRAPE 6
SCRATCH 3
SCRAWL 4
SCRAWNY 4
SCREAM 1
SCREECH 3
SCREEN 2
SCREW 5
SCRIBBLE 2
SCRIBE 7
SCRIMMAGE 10
SCRIMP 8
SCRIPT 5
SCRIPTURE 8
SCROLL 5
SCROUNGE 4
SCRUB 1
SCRUFF 4
SCRUTINIZE 7
SCRUTINY 8
SCUBA 4
SCUFF 5
SCUFFLE 6
SCULPTOR 7
SCULPTURE 7
SCUM 7
SCURRIES 5
SCURRY 3
SCUTTLE 4
SCYTHE 5
SEA 1
SEAFARER 7
SEAFARING 7
SEAFOOD 3
SEAL 2
SEAM 6
SEAPORT 4
SEAR 6
SEARCH 2
SEASHELL 2
SEASHORE 2
SEASIDE 3
SEASON 2
SEASONAL 7
SEAT 1
SEAWEED 2
SECEDE 11
SECLUDED 10
SECLUSION 10
SECOND 1
SECONDARY 11
SECONDHAND 4
SECRECY 6
SECRET 1
SECRETARY 3
SECRETE 10
SECTION 2
SECTIONALISM 9
SECTOR 4
SECURE 3
SECURITY 8
SEDAN 7
SEDATE 5
SEDATIVE 11
SEDIMENT 12
SEDUCTIVE 8
SEE 1
SEED 1
SEEK 2
SEEM 1
SEEN 1
SEEP 11
SEEPAGE 11
SEESAW 1
SEETHE 7
SEGMENT 10
SEGREGATE 10
SEIGE 7
SEIZE 3
SELDOM 5
SELECT 5
SELECTION 4
SELECTIVE 8
SELF 1
SELFISH 2
SELFISHNESS 2
SELL 1
SELVES 1
SEMESTER 5
SEMICIRCLE 6
SEMINAR 8
SENATE 6
SENATOR 5
SEND 1
SENDER 2
SENIOR 4
SENSATION 6
SENSE 2
SENSIBLE 6
SENSITIVE 8
SENSORY 12
SENSUAL 8
SENT 1
SENTENCE 1
SENTIMENT 8
SENTIMENTAL 6
SENTINEL 12
SENTRIES 8
SENTRY 8
SEPARATE 5
SEPARATION 8
SEQUENCE 8
SERENADE 6
SERENE 6
SERENITY 8
SERGEANT 5
SERIAL 7
SERIES 5
SERIOUS 3
SERMON 6
SERPENT 4
SERUM 7
SERVANT 3
SERVE 3
SERVICE 4
SESSION 7
SET 1
SETTING 2
SETTLE 3
SETTLEMENT 5
SETTLER 3
SEVEN 1
SEVENTEEN 4
SEVENTH 3
SEVENTY 3
SEVER 12
SEVERAL 3
SEVERE 3
SEVERITY 8
SEW 3
SEWAGE 6
SEWER 7
SEX 7
SHABBY 4
SHACK 6
SHADE 1
SHADOW 1
SHADY 2
SHAFT 3
SHAGGY 3
SHAKE 2
SHAKY 3
SHALL 1
SHALLOW 2
SHAM 12
SHAMBLE 6
SHAME 3
SHAMPOO 6
SHANK 10
SHANTY 4
SHAPE 1
SHARE 1
SHARK 5
SHARP 1
SHATTER 7
SHAVE 2
SHAVER 8
SHAWL 3
SHE 1
SHEAF 7
SHEAR 4
SHEATH 8
SHED 1
SHEEP 1
SHEEPISH 6
SHEER 11
SHEET 1
SHELF 2
SHELL 2
SHELLAC 6
SHELTER 3
SHELVES 2
SHEPHERD 3
SHERIFF 3
SHIELD 4
SHIFT 5
SHILLING 6
SHIMMER 4

SHIN 5
SHINE 1
SHINGLE 3
SHINY 2
SHIP 1
SHIRT 1
SHIVER 3
SHOCK 3
SHOE 1
SHOELACE 2
SHOEMAKER 1
SHOESHINE 3
SHONE 3
SHOOK 1
SHOOT 2
SHOP 1
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TURMOIL 10
TURN 1
TURNIP 1
TURNPIKE 6
TURNTABLE 7
TURPENTINE 7
TURQUOISE 3
TURTLE 1
TURTLENECK 2
TUSK 7
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TWEED 3
TWEEZERS 4
TWELFTH 4
TWELVE 3
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TWENTY 2
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TWIG 2
TWILIGHT 3
TWIN 2
TWINE 5
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TWINKLE 5
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TWITCH 4
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UNFAIR 3
UNFAMILIAR 3
UNFINISHED 3
UNFOLD 2
UNFORTUNATE 5
UNFRIENDLY 3
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UNHAPPY 2
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UNIDENTIFIED 6
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UNPREDICTABLE 8
UNQUALIFIED 7
UNQUESTIONABLY 7
UNRAVEL 8
UNRELENTING 7
UNRELIABLE 7
UNROLL 2
UNRUFFLED 6
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UNSAFE 3
UNSAVORY 8
UNSCATHED 8
UNSCRUPULOUS 8
UNSTABLE 9
UNSTEADY 3
UNSURE 2
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WINDSHIELD 6
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WITHER 6
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WRAPPED 3
WRATH 6
WREATH 6
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WRECKAGE 6
WREN 6
WRENCH 6
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XYLOPHONE 3
YACHT 6
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YANK 4
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YEARN 8
YEAST 6
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YELLOWISH 3
YELP 6
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YOLK 6
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YOUNGSTER 5
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YOURSELF 1
YOUTH 5
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ZEALOUS 12
ZEBRA 2
ZENITH 12
ZERO 4
ZEST 11
ZIGZAG 7
ZIP 1
ZIPPING 3
ZONE 4
ZOO 1
ZOOKEEPER 2
ZOOLOGICAL 7
ZOOLOGIST 7
ZOOLOGY 5
ZOOM 4
ZUCCHINI 10